Lectures

ON THE

ANATOMY AND PATHOLOGY OF THE EYE.

Delivered at the Royal College of Surgeons of England on Dec. 3rd and 5th, 1894,

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LECTURE I.

MR. PRESIDENT AND GENTLEMEN,—The pathology and anatomy of the eye are large subjects, and it would be impossible to treat of them completely in the course of three lectures. I have chosen it, however, as a title because it leaves me free to speak on several widely different points which I have had exceptional opportunities of investigating, and to which I have devoted special attention. In studying the pathology of the eye I soon became aware how largely a knowledge of the embryology of that organ helped to interpret the changes met with. Not only does embryology help to elucidate morbid processes, but I think I shall be able to show that very valuable suggestions as to doubtful points in the development of tissues may be obtained from the changes which occur in disease. The way in which these two subjects, embryology and pathology, mutually help to explain one another will be the keynote of my lectures.

Taking first the suspensory ligament of the lens, which was at one time supposed to consist of two layers of membrane, but which is now known, and is shown by the specimens on the table, to consist of bundles of fibres, its mode of development has been left by embryologists but very imperfectly explained. According to Kölliker, it is formed in man during the fourth month. Lieberkühn remarks that the zonule is distinctly recognisable in eyes which have attained half their definite size. Angelucci and Löwe believe that the suspensory ligament is derived from the anterior part of the vitreous. My attention was first directed to the matter by the examination of an eye of which I published a full description in the Royal London Ophthalmic Hospital Reports. It had been enucleated from an infant aged three months, under the supposition that it contained a new growth. Pathological examination revealed that the opaque mass behind the lens, which had been taken for the growth, was really a collection of cells and fibres, into which a persistent hyaloid artery, still patent and carrying blood, passed and broke up. The chief interest of the specimen, however, centred in the fact that it exhibited the fibres of the suspensory ligament in all stages of their development. The fibres of the lens, instead of developing in the normal way, filling and rendering tense the capsule in which they are contained, had undergone retrogressive changes, and had left the capsule lax and wrinkled. Whether this was the result of the persistence of the hyaloid artery, or whether it had persisted as a result of changes in the lens, I am unable to determine. Anyhow, as the result of the lax condition of the capsule, the fibres of the suspensory ligament do not appear to have become stretched to their usual extent, and hence exhibited all stages of delayed development. The ciliary processes were in places nearly in contact with the sides of the lens; adhesions stretched between them composed of spindle-shaped cells, and in other parts fibres like those of the suspensory ligament with nuclei lying on them. These fibres, as they approached their insertion into the ciliary processes, became thicker, and some of them were there composed of several layers of elongated cells, which gradually merged into the unpigmented cells covering the ciliary processes.

The appearances shown in these specimens suggested that the fibres of the suspensory ligament were originally cellular adhesions passing between the sides of the lens and the ciliary processes; that as the eye grew these adhesions became stretched, and lengthened out into fibres with nuclei on them; and that ultimately the nuclei disappeared and left the suspensory ligament as we see it in the adult eye. To test the truth of this theory I measured the diameters of a series of fœtal eyes and the diameters of the lenses contained in them. The result of these measurements I have embodied in Table I. There is a possible source of error in the fact that all the measurements were made after the eyes had been hardened in Müller's fluid. On account of there being necessarily some delay in my obtaining the eyes after their removal this was the only course open to me. In every case an antero-posterior vertical section was made of the eyeball and the lens measured *in situ*.

TABLE I.—*Showing the Diameters of a Series of Fœtal Eyes and of their Lenses.*

Age.	No. of eyes examined.	Diameters of Eyeball.			Diameters of Lens.	
		Antero-posterior.	Lateral.	Vertical.	Antero-posterior.	Transverse.
4th month	3	8·1 mm.	7·8 mm.	7·5 mm.	2·8 mm.	3·3 mm.
5th month	1	11·75 mm.	11·5 mm.	10·5 mm.	3·5 mm.	4 mm.
6th month	4	12·5 mm.	12 mm.	11·1 mm.	3·8 mm.	4·5 mm.
7th month	8	14·3 mm.	13·2 mm.	12·6 mm.	4 mm.	5 mm.
9th month	3	16·75 mm.	16 mm.	15·3 mm.	4·3 mm.	5·75 mm.
Adult ...	Merkel	24·3 mm.	23·6 mm.	23·4 mm.	3·7 mm.	9 mm.

This table shows that the diameters of the globe at the ninth month are just double what they are at the fourth month, and in the adult treble that size; that the transverse diameter of the lens is likewise double at the ninth month and treble in the adult what it is at the fourth month. So supposing, as is the case, that the ciliary body touches the sides of the lens at the fourth month—in that the eyeball is much larger than the lens, to begin with, and both increase to double and treble their size—then, unless the thickness of the coats of the eyeball also become double the thickness they were (which they do not), there must be a gradual growing away of the ciliary body from the sides of the lens and stretching of any adhesions which had formed between them. I have recently examined microscopically a human fœtal eye of between the third and fourth months, in which cellular adhesions passing between the ciliary processes and the fibro-vascular sheath of the lens are distinctly shown. I think that there can be little doubt these are the commencing fibres of the suspensory ligament. The hindermost fibre of the suspensory ligament is inserted into the retina in the region of the ora serrata. The retina, as was long ago pointed out by von Ammon, and as I have had abundant opportunities of confirming, is in the fœtal eye thrown into numerous creases; apparently the inner layer of the secondary optic vesicle grows at a greater rate than the outer. The most pronounced of these folds and the last to disappear is in the region of the ora serrata. In fact, folds of retina at this part are at one time in contact with the back of the lens, and while there are quite capable of acquiring adhesions to the fibro-vascular sheath. On the growth of the globe, the enlargement of the vitreous and the flattening out of the retina these adhesions become stretched and elongated into fibres.

The above description of the way in which the zonule of Zinn develops not only throws light on some of the congenital abnormalities met with in connexion with the lens, but also receives considerable support from its mode of explaining them. Taking first the condition known as coloboma lentis, an excellent *résumé* of the literature of which malformation, together with two new cases, has been published by Dr. Heyl,[1] I cannot do better than quote the passage in which he sums up: "From the preceding it may then be seen that coloboma of the lens is a condition which presents at the place of defect an edge, not rounded as in the normal condition, but either straight in the horizontal direction or incurved; that the amount of deficiency varies from a slight indentation to about one-quarter of the lens substance, the centre of the lens, its poles, and the lens substance in the immediate vicinity being uninvolved; that the lens sometimes, in addition to the defect, is imperfectly developed in all its meridians; that the deficiency is always in the inferior half, and, almost without exception, entirely so; and, finally, that coloboma of the other ocular structures frequently coexists, but very frequently no trace of it can be found."

Now, supposing the pars ciliaris retinæ failed to acquire adhesions to the lens capsule in one part of its circumference,

[1] Transactions of the Fifth International Ophthalmic Congress, p. 16.

it follows that the suspensory ligament would be absent in that position; and that as the eyeball enlarged that portion of the capsule to which no suspensory ligament was attached would not be held taut, and made to expand like the remainder. Consequently there would be a depression in the lens in that situation. The amount and shape of the deficiency would depend on the extent of the defect in the suspensory ligament. There would not, of course, be any alteration in the nucleus or poles of the lens, for these are formed before the influence of the suspensory ligament comes into play. The most likely cause for the non-adhesion, and so for the defect in the suspensory ligament, would be the absence of the ciliary body or pars ciliaris retinæ—in fact, coloboma of the ciliary body. Dr. Heyl says that this condition does frequently coexist with a defect in the lens, the defect being in the situation of the fœtal cleft. Mr. Marcus Gunn,[2] regarding the condition of coloboma lentis from the clinical side, has arrived at a similar conclusion as to its mode of formation. He says: "The notch in the lower border of the lens may be accounted for by the imperfect development of the ciliary processes and suspensory ligament, so that the soft lens is not here drawn outwards into the normal comparatively sharp curve at its equator." The same observer[3] has pictured and described a case of congenitally misplaced and notched lens, in which a distinct gap in the suspensory ligament was visible corresponding to the notch. I have recently examined pathologically an eyeball in which there was a congenital coloboma in the outer margin of the lens. The ciliary processes opposite the notch in the lens, instead of being directed inwards towards the sides of the lens, as they were in the rest of the circumference of the globe, sloped backwards. This might be explained by the suspensory ligament being absent in this position, the ciliary processes not having been drawn forwards by it, as was the case elsewhere. Whether or not there was a gap in the suspensory ligament I was unable definitely to determine, owing to the way in which the eyeball was opened. Ectopia lentis, or congenital displacement of the lens, has been attributed by Becker to irregular development of the suspensory ligament. I think the explanation I have given of the mode of formation of the latter helps us to understand how this comes about. The literature of the subject has been carefully worked up by Dr. D'Oench,[4] and he ends his article with the following conclusions:—"1. Ectopia of the lens is a malformation, the causes of which thus far remain unknown. 2. It always affects both eyes generally in a symmetrical manner. 3. The direction of the displacement is almost always either upwards and inwards or upwards and outwards. 4 The lenses are generally transparent; sometimes their size is below the mean. 5. The suspensory ligament is sometimes found and sometimes it is not. 6. In about one-fourth of all cases there is myopia. 7. The position of the lenses may remain unchanged throughout life, but spontaneous dislocation may also result. 8. Heredity has been proven." Supposing the adhesions which take place between the capsule of the lens and pars ciliaris retinæ to form the fibres of the suspensory ligament be absent over a large area, then on the expansion of the globe there would be no counteracting force on one side to hold the lens in position, and it would be drawn towards that side to which the adhesions had formed. The determining cause as to whether a coloboma of the lens is formed or an ectopia would depend on the extent of the deficiency in the suspensory ligament. In some cases, as would be expected, both are present. When the deficiency is very great indeed the lens would be mobile, and might become dislocated. Abnormal density or frailty of the adhesions in part of the circumference would also be likely causes of displacement of the lens, and would account for those cases in which some of the fibres of the suspensory ligament can be seen passing (in a case of displacement upwards) from the lower margin of the lens to the ciliary body. Delay in the closure of the fœtal cleft, though it did not lead to permanent coloboma of the ciliary body, could yet lead to ectopia of the lens, for the eye might have expanded to such an extent that the lens would have been drawn away from the lower part of the globe before the ciliary processes had sufficiently developed to have acquired adhesions to its capsule. Mr. Nettleship, in his Text-book on Diseases of the Eyes,[5] says: "Congenital dislocation of the lens is often accompanied by other defects of development, such as coloboma." It is noteworthy that the lens is almost invariably displaced upwards either directly or with some inclination inwards or outwards; that is to say, it is almost always displaced in the opposite direction to the fœtal cleft, which we know is generally downwards, or downwards with a slight inclination inwards or outwards. The table of measurements of lenses which I have put before you shows that the transverse diameter of the lens is at the fourth month only a little more than the antero-posterior diameter, and in the adult lens is nearly three times as much. This globular condition of the fœtal lens is well known, and the alteration in its shape is due to the laying on of fresh lens fibres at the sides. The cells lining the anterior capsule proliferate and shift round it until they reach a position a little behind its equator, where they commence to lengthen out. The traction which is exerted on the sides of the lens, through the fibres of the suspensory ligament, by the growth of the ciliary processes away from it, apparently influences the position in which new lens fibres are laid on.

[Mr. Collins then went on to show how cells come to line the posterior capsule in cataractous lenses.]

The way in which the capsule of the lens develops has not yet been definitely determined. There are two views respecting it which are thus referred to in the ninth edition of Quain's Anatomy: "The origin of the capsule of the lens appears to be still somewhat doubtful. Lieberkühn, Arnold, and Löwe profess to trace it to a thin pellicle of mesoblast, which at an early period passes in between the lens and the secondary ocular vesicle; but Kölliker and Kessler are of opinion that it is a cuticular deposit on the surface of the lens cells. Balfour is inclined to adopt the latter view, on the ground that the capsule seems to make its appearance before the introduction of the mesoblast has occurred." The examination of the histological changes in anterior polar or pyramidal cataracts throws, I think, some light on this matter. I have had the opportunity of examining pathologically a large number of lenses with this form of cataract, and I will discuss in detail the changes observed in them and enter somewhat fully into the views which have been put forward as to their mode of origin. I have examined microscopically thirteen lenses with anterior polar cataracts, which have varied from one month up to twenty-one years in the length of time which had elapsed since their formation.

I may here mention that I only regard as anterior polar cataracts opacities which are situated within the capsule; these are opacities of the lens itself—that is, true cataracts; and to them the name should be confined. It is possible that there may be opacities at the anterior pole of the lens due either to inflammatory deposit or to the persistence of a portion of the anterior fibro-vascular sheath; these would be external to the capsule, and therefore not true cataracts. It is well not to confound these latter with the former, but to speak of them as what they really are—viz., pupillary membranes, either inflammatory or congenital. The first change to occur in the formation of an anterior polar cataract is a localised proliferation of the cells lining the anterior capsule and some disturbance and breaking up of the lens fibres in the neighbourhood. As a consequence of the proliferation of the capsule cells, elevation of the hyaline capsule over them is brought about, and from the breaking up of the lens fibres some excavation of the lens substance beneath them occurs. Later the mass of cells and débris of the broken-up lens fibres becomes condensed into an almost structureless substance, showing a slight lamination and having a few flattened epithelial cells stranded here and there in it. When the mass which constitutes the opacity has reached this condition the cells which line the capsule at its margin spread in between the opaque part and the unaltered lens substance, so that in an anterior polar cataract which has existed for more than seven months a layer of cells is seen between the opacity and the lens substance continuous with those lining the capsule elsewhere. Later still—that is, after several years—a layer of hyaline capsule is found separating the opacity from the lens substance in addition to the layer of cells, so that at the margin of the opacity the hyaline capsule seems to split into two divisions—one going in front of it and the other, with a layer of cells lining it, behind it.

Presumably the newly formed layer of capsule is a deposition from the cells; and if the capsule cells are in a pathological condition capable of producing a layer of hyaline capsule it seems reasonable to suppose that that structure is originally

[2] Ophthalmic Review, vol. viii., p. 234.
[3] Transactions of the Ophthalmological Society, vol. ix., p. 166.
[4] Archives of Ophthalmology, vol. x., p. 89.
[5] Fifth edition, p. 181.

formed by them. That the changes which give rise to pyramidal cataract are situated beneath the hyaline capsule was long ago pointed out by Stellwag von Carion, Müller Bucke, Bauer, Dixon, and Hulke. That occasionally a hyaline layer is met with behind the opacity as well as in front of it was mentioned by Becker, who considered that it had become split off by the intrusion of new material into the substance of the capsule. More recently B. Gepner, jun.,[6] as the result of examination of two cataractous lenses from fishes' eyes, came to the conclusion that these hyaline layers were not split off the original capsule, but freshly secreted by the epithelial cells. This latter view of their origin I am inclined, as I have said, to believe to be correct, because in all the more recent anterior polar cataracts which I have examined I find there is no distinct layer separating the opaque part from the lens fibres. In those of longer duration a layer of cells is observed between them, which looks as if they had spread in from the unaltered cells lining the capsule. In two lenses in which several years had elapsed since the formation of the cataract, in front of the layer of cells was the layer of hyaline capsule; it was thicker in the one of twenty-one years than in that of eleven years' duration. Also, because the hyaline layer behind the opacity in one of the cases is a complete layer. I have examined numerous sections of it, but have been unable to find any gap in its continuity through which the intrusion of new material could have taken place. It is sometimes observed that when there is an opacity at the anterior pole of the lens there is also a second opacity, a little depth in the lens substance, separated from the anterior one by some clear lens matter. I have notes of three such cases.

The first case was that of a man aged twenty-four years who in infancy had had inflammation of the eye, which left a nebula of the cornea. There was a raised opacity at the anterior pole of the lens opposite the nebula, and further back in the lens another opacity. The second case was that of a girl aged nineteen years. She stated that both her eyes were bad when she was born; they were swollen and discharged; they remained bad for about three months and had been in their present condition as long as she could remember. She had slight lateral nystagmus, faint nebulæ of both corneæ, a small central opacity at the anterior pole of each lens, and a second opacity in each lens at a little depth in it, clear lens substance intervening. The third case was that of a man aged twenty years; his left eye was inflamed when he was three years old; he never remembered seeing properly with it. There was a faint nebula of the cornea, and in a position corresponding to it an opacity at the anterior pole of the lens; posterior to this was a layer of clear substance, and then a second opacity.

It will be seen that in all these three cases several years had elapsed between the inflammatory attack, which presumably caused the anterior polar opacity, and the time at which the patient came under observation. These lenses had therefore considerably increased in size, due to the laying on of fresh cortical fibres since the anterior polar cataracts were first formed. These fresh fibres would have separated the opaque part, produced by the mass of proliferated epithelium, from the part of the lens which was in contact with them when the disturbance originally occurred, and which was also probably broken up and opaque. In this way two opacities are formed separated by clear lens substance, the posterior of which would appear to sink deeper and deeper as the lens increased in size. It is well known that anterior polar opacities in the lens are frequently produced by ulceration of the cornea, and frequently follow that very common cause of ulceration of the cornea—viz., purulent ophthalmia of infancy. Though most often originating in early life, they may occur at any age. I have examined one of recent formation from a man aged fifty-one years, who one month previously to excision had had ulceration of the cornea, with hypopyon, for which a Saemisch's section had been performed. I have another specimen from a man aged forty-six years, whose eye was affected with a traumatic ulcer of the cornea one month previously to its enucleation. True anterior polar cataract—that is, where the opacity is situated beneath the capsule and which in every respect resembles those which follow on ulceration of the cornea—may be congenital and occur in eyes with perfectly clear corneæ. I have two specimens which demonstrate this, and I wish to lay particular stress on it, because it is very tempting to attribute any congenital opacity at the anterior surface of the lens to the persistence of a portion of the anterior fibro-vascular sheath, especially if tags of it are adherent to the anterior surface of the iris in the same eye. The first of the two cases of congenital anterior polar cataract I examined was associated with such tags, and in addition with almost complete congenital absence of the iris in both eyes. The patient died when three years old as a result of a burn, and both eyes were obtained for pathological examination; one has been mounted as a macroscopical specimen, and sections have been cut of the other. I shall have to refer again to this eye in speaking of congenital abnormalities of the iris. My second specimen of anterior polar cataract is a very remarkable one. The eye was excised when the child was seven years old; it had, in addition to the opacity of the lens, congenital anterior synechia of the iris and hydrophthalmos. The anterior polar opacity was very large and the rest of the lens imperfectly developed. As I have said, it is quite possible to have congenital anterior polar cataracts without any opacity of the cornea. Often in those in which anterior polar cataracts exist, and in which there is a distinct history of purulent ophthalmia in infancy, only a faint nebula of the cornea is found; so faint, indeed, sometimes that it seems impossible to believe that it is all the damage that has resulted from a perforating ulcer of the cornea. Though these cataracts are most often seen clinically in cases where there are slight corneal changes, from the great frequency with which I have met with them pathologically in eyes where the cornea is completely opaque, and where there can be no doubt that perforation has occurred, I feel convinced that a perforating ulcer is the commonest cause of them.

Such, then, being the facts with regard to anterior polar cataracts, how can their formation be explained? Mr. Hulke,[7] writing on this subject, says: "When we remember the small size of the anterior chamber of an infant's eye and the spherical shape of the lens at this period of life, it becomes apparent that the distance between the front of the lens and the posterior surface of the cornea must be very small, for a large segment of the lens projects through the pupil and the zenith is considerably in advance of the plane of the iris; in these respects the infant's eye presents a striking similarity to that of the fish. In ophthalmia neonatorum, when the cornea has become inflamed and swollen its posterior surface may actually come into contact with the front of the lens, and then a dot of lymph poured out upon the latter by the inflamed cornea, or even the mere pressure contact, may give rise to opacity by preventing the proper nutritional osmose through the cornea; the little white cones which seem to project forward through the pupil in cataracta pyramidata, have their origin in this way." Mr. Hutchinson[8] says on this matter: "The theory which I would venture to support is this, that the mere proximity of the inflammatory action on the surface of the conjunctiva and cornea suffices to disturb the nutrition of the lens capsule and to produce deposits. It is of course admitted that the lens surface is, during infancy, in very close proximity with the posterior surface of the cornea, so that such disturbance of nutrition may be more easily possible than it would in adult life. Still, if this hypothesis be tenable, we have in the occurrence a most interesting example of the pathological possibility that diseased action may, by a sort of vital catalysis, disturb a structure with which it is not in continuity, and that even when there exists between the disturbing and disturbed tissues a structure (cornea) which is wholly unaffected, and a layer of fluid of greater or less depth." Mr. Hutchinson,[9] in criticising the views of Mr. Hulke on the mode of formation of pyramidal cataracts, says: "I cannot but suspect that we adopt hypotheses which are too mechanical when we attribute these little opacities either to corneal perforation or to prevention, by pressure, of nutritional osmose. As regards the latter, we must remember that there is excess, not deficiency, of growth." My own observations of these cataracts lead me to incline to the view put forward by Mr. Hulke, and to attribute their formation to contact of the cornea with the anterior pole of the lens, and so an arrest in the osmose of the nutritional fluids to it in that position. The contact when the opacity is congenital is due to delay in the formation of the anterior chamber which prolongs the apposition of these structures, normally existing during part of fœtal life, after the fibro-vascular sheath has disappeared. In infancy, when the anterior

[6] Archiv für Ophthalmologie, Band xxxvi., p. 255.

[7] Royal London Ophthalmic Hospital Reports, vol. i., p. 190.
[8] Ibid., vol. vi., p. 138. [9] Ibid., p. 140.

chamber is very shallow, contact may be brought about by the swelling of the cornea, which is the accompaniment of inflammation of it, and need not necessarily be due to its perforation. Later in life the formation of anterior polar cataract is less common, and it would then seem that perforation of the cornea must occur before the lens can come into apposition with it. Mr. Hutchinson's objection to this theory may, I think, be met in this way. The immediate result of the arrest of the osmose of nutrient fluids through the capsule at the anterior pole is to cause the lens fibres in that region to shrink and to break up into hyaline globules and granular detritus; as a consequence of their shrinking and degeneration, the tension of the capsule at the anterior pole is lessened. There is evidence to show that the only thing which keeps the epithelial cells that line the capsule from proliferating more quickly than they do is the tension to which they are exposed; therefore, directly the tension at the anterior pole is lessened they commence to multiply at an increased rate and form the mass of cells which is the earliest stage of these opacities.

During the last few years the results of several investigations of minute anatomy of zonular cataract have been published. I have myself had seven lenses presenting this form of cataract for microscopical examination. Before entering into the changes I have found I will briefly review what has been written on the subject. Von Gräfe[10] and Jäger[11] found from section of lenses with zonular cataract which had been removed by extraction that there was an opaque whitish line separating a clear nucleus from a clear cortex. Deutschmann[12] was the first to examine a zonular cataract microscopically. He found the nucleus and cortex clear and unchanged, but that they were separated by a zone in which the lens fibres were altered by the presence of numerous vacuoles and small drops of myeline; also that there were fissures between the fibres filled with granular detritus. The next observations into the microscopical characters of zonular cataract were made almost simultaneously by Beselin[13] in Germany and by Lawford[14] in this country. Beselin summarises the changes he found as follows: "Scattered throughout the nucleus of the cataract examined we find numerous small masses, which are apparently post-mortem coagulation products. This nucleus is surrounded by two oval zones of cataractous substance, neither complete nor continuous, which are separated by a layer of normal lens tissue. These are, however, united here and there: both zones consist in greater part of large and small fissures, which are filled with detritus. In their immediate vicinity lens fibres are found, which are in process of cataractous degeneration. The cortex is composed of normal lens tissue; it presents a number of small fissures apparently accidental, which are filled with detritus, and at the periphery a number of small fissures may be seen, which were apparently produced artificially." Lawford, in the three specimens he examined, found in the cortical layers no changes of importance. The line of demarcation between the cortical and nuclear areas was abrupt, and between them he found a thin layer with breaks in it of granular substance; this he regarded as probably constituting the essential part of zonular cataract. In the nuclear area of all three specimens was a large number of small irregular dots or particles arranged more or less in layers, and which seemed to run concentrically, as if following the laminæ. He was inclined to regard these latter as coagulation masses, the result of the fluids employed in preserving the specimens. Otto Schrimer[15] found a similar dotted—or, as he termed it, "vacuolated"—condition of the nucleus to those discovered by Beselin and Lawford. He found, however, that the vacuoles were more numerous in what he regards as the zone of opacity than in its central portion. He does not agree with Beselin and Lawford that these vacuoles were produced by the hardening reagents, but considers that they are the essential cause of the opacity. Such a band of vacuoles, he points out, is just the very thing to produce an opacity in a lens, as the coefficient of refraction differs in the vacuoles and in the lens fibres; the fact that this layer was not sharply differentiated from the nucleus is no argument against his position, for there is nothing to prove that zonular cataracts have any such sharp line of demarcation. He subsequently[16] brought forward a specimen to show that vacuoles existed in a lens in the recent state; also that the layer of vacuoles corresponded exactly in size and position with the opaque zone seen before and after extraction. The clefts described by Beselin and Lawford he thinks are probably the striæ often seen in connexion with these opacities. Schrimer has further shown that central cataract is due to vacuoles or drops similar to those seen in zonular cataracts. Hess, who has examined five zonular cataracts, confirms Schrimer's results. The seven lenses which I have examined with what were described clinically as zonular or lamellar cataracts were all prepared in the same way. They were all hardened in Müller's fluid, passed through spirit and embedded in celloidin, after which sections were cut of them. They were all lenses which had been removed by the operation of extraction, after the capsule had been opened, from patients over the age of twenty-four years. In all of them some laceration of the extreme cortical layers had occurred. In three only was the transverse diameter of the opacity measured, in two of these it was 3·5 mm. across and in the other 5·5 mm. Microscopically three different kinds of changes are met with in these lenses; all three are not present in each lens, and the amount of change in each lens varies considerably. These changes are: First, fissures between the lens fibres, which may or may not contain a granular substance, they run concentrically to the nucleus separating it from the cortex. Secondly, small vacuoles, mostly round or oval, but in places, where they seem to have run into one another, elongated and beaded. Some of them contain a hyaline substance, which, after prolonged immersion in logwood, stains deeper with it than the surrounding lens fibres. The average size of these vacuoles is about 0·005 mm. across. Thirdly, spaces larger than the so-called vacuoles measuring on an average about 0·02 mm. across, mostly circular, with very irregular margins and containing a granular substance which stains deeply with logwood; apparently some degeneration of lens substance has occurred in their formation. These three changes correspond to the appearances seen clinically in these cataracts—viz., the radiating spokes or striæ, the uniform haze, and the denser dots. None of the specimens showed any changes in the cortical layers, which were not readily accounted for by laceration of them in the removal of the lens. In several of the specimens there was a great tendency for the nucleus to separate from the cortex and to drop out. In these it was impossible to say to what extent fissures between the nucleus and cortex existed prior to extraction. In some fissures existed containing no granular substance. In one the amount of granular substance was very great; it formed a band 0·15 mm. wide encircling the nucleus. The lens fibres bordering on this band were degenerate and had some of the small vacuoles amongst them. This specimen differed from all the others I have examined in that the nucleus showed no changes and was completely free from any vacuoles. In the appearances of the band of granular substance, and in the absence of changes in the nucleus, it is very similar to that described by Deutschmann. In all the other six lenses small vacuoles were present in the nucleus; in most they were more numerous and closer together in a zone around the nucleus than in the nucleus itself; in two, however, they were distributed uniformly throughout the whole nucleus. If these vacuoles or bodies, as Schrimer suggests, are what give rise to the opacity, then these last two specimens were really central and not zonular cataracts. They were probably incorrectly classed clinically. It would seem that no very sharp line can be drawn between zonular and central cataracts—the same changes are met with in both, differing only in locality and degree. In the two lenses in which in addition to the zonular haze white dots of opacity were seen are the ones, and the only ones, in which I have found the third change mentioned, the larger circular spaces with granular contents. The position of these spaces, outside the zone of small vacuoles, corresponds to that in which the white dots appear to be situated.

Such, then, being the anatomical changes met with in zonular cataract, how are they brought about? Horner's view was that a pathological layer of lens substance is deposited about a normal nucleus. This he attributed to rickets, the convulsions met with in connexion with it being due to cranio-tabes, and the changes in the enamel of the teeth being also of rachitic origin. This view of the rachitic origin of zonular cataract has been widely accepted by writers on the Continent, but none of the text-books in this country mention it. Leber thought that a normally formed layer of lens substance became subsequently changed. Beselin and Schrimer differ from these authorities. The former asserts that alterations in the nutrition affect the whole nucleus, and

[10] Archiv für Ophthalmologie, Band i., p. 236.
[11] Staar und Staar-operationen, 1854, p. 17.
[12] Archiv für Ophthalmologie, Band xxxii.
[13] Archiv für Augenheilkunde, Band xviii.
[14] Royal London Ophthalmic Hospital Reports, vol. xii., p. 184.
[15] Archiv für Ophthalmologie, Band xxxv., p. 147.
[16] Ibid., Band xxxvi., p. 185.

that this change takes place when the subsequent nucleus constitutes the whole lens, the general contraction of the affected part causes the formation of fissures between it and the cortical layers of normally formed lens substance which are developed later, and that a granular substance subsequently collects in these fissures. Schrimer's theory is as follows: "Some unknown disturbance—probably in its nutrition—affects the lens so as to produce vacuoles in its substance. These may be at first in the fibres, perhaps, but later on between them certainly. Only the newest lens fibres and those formed during the action of the noxious agent contain enough vacuoles to exhibit a visible opacity. The vacuoles in the nucleus are not enough to produce this appearance; but, though the nucleus remains transparent, it has altered in its physical properties so that it shrinks more rapidly than the subsequently formed cortical portion is able to do, and clefts are thus produced in the lens." Many regard zonular cataracts as really congenital, and a recent paper by Bernard Dub[17] brings forward evidence in favour of this view. The table of measurements of fœtal lenses I have put before you has been used by him, together with measurements of adult lenses by Priestley Smith, and a series of measurements of lenses from the ages of ten months to twelve years made by himself for the purpose of determining the time of life at which zonular cataracts originate. To do this he has compared the measurements of the lens at different ages with those of the opaque zones in a series of zonular cataracts. His method of effecting the measurement of these latter is very ingenious. It is described as follows: "If the left eye be the one affected, a millimetre scale is placed about the patient's left temple behind the outer canthus. The observer illuminates the fundus of the eye by an ophthalmoscope held before his own right eye, and keeps his left eye closed; then, opening his left eye, he squints inwards, so as to fix the scale with the left eye, while the right still observes the cataract against the red background of the illuminated fundus. The position of the scale is such that the homonomous diplopia thus evoked makes the image of the cataract seen by the right eye coincide with that of the scale seen by the left, and the only thing further required is to make the correction necessary to neutralise the enlargement produced by the magnifying power of the patient's cornea. Dub assumes this to be one-seventh (on Helmholtz's authority), and corrects his figures accordingly." As the result of his measurements, he concludes that the commonly received views that zonular cataracts begin in the first two years or so of extra-uterine life, and that the peripheral fibres are the parts affected, cannot both of them be true. This paper gives in figures drawn from a series of cases the views which were expressed by Mr. Hulke[18] in his Presidential Address to the Ophthalmological Society in 1886. He then said: "With reference to cataract in early life, it is a question with some at what age the lamellar form makes its appearance, or rather some excellent observers have formed the opinion that it is infantile, not congenital. I am not convinced by the arguments used by the supporters of infantile origin. The opaque zones are clearly laid down during the development of the lens, and instances of zonular cataract occur where the diameter of the opaque zone is certainly less than that of the entire lens at birth." He further goes on to say that the first recognition of lamellar and zonular cataract based on dissection was, so far as he knew, made by Mr. Bowman, the subject being a kitten a few days old.

A number of direct measurements have now been made of the opaque areas in zonular cataract. The following table gives the transverse diameters of ten such, together with the measurements in Dub's ten cases.

Table II.—Showing Direct Measurements of the Transverse Diameters of the Opaque Areas in Ten Zonular Cataracts, with Dub's measurements in ten cases.

Direct Measurements.	mm.		Dub's Measurements.	mm.
Beseline	6	.....	1.	4·4
Lawford (1)	5·25	.....	2.	4.6
Lawford (2)	4·5	.....	3.	4 7
Lawford (3)	4·5	.....	4.	4·8
Schrimer (1)	5·75	.....	5.	4·8
Schrimer (2)	3·25	.....	6.	5
Schrimer (3)	6	.....	7.	5·2
Collins (1)	3·5	.....	8.	5·2
Collins (2)	3·5	.....	9.	5·5
Collins (3)	5·5	.....	10.	5·6

[17] Ibid., Band xxxvii., p. 26.

[18] Transactions of the Ophthalmological Society, vol. vii., p. 27.

The average transverse diameter of three lenses at the ninth month of fœtal life I found to be 5·75 mm., and Dub found the average of three lenses under a year old to be 7·46 mm. So it would seem from these direct measurements that the zone of opacity in zonular cataract is probably never larger than the lens at birth, that it may be about the size of it at that time, but is more often smaller, and sometimes very much smaller. The direct measurements differ slightly from Dub's and show a greater variety in size, in three the zone being larger than his largest, and in three smaller than his smallest. In the smallest there is so much difference between the size of the zone and that of the lens at birth that I think it hardly possible to believe that the opaque area was the extreme cortex at the time of birth, and that the diminution in size is the result of shrinking. We must, then, either conclude that zonular cataract may be produced before birth or that the part affected, when affected, is not the most peripheral, as has generally been supposed. It is, I think, conceivable that as the result of some general disturbance of nutrition the lens might become affected after birth, so that the nucleus, which is furthest removed from the nutrient supply, would shrink. Shrinking of the nucleus is what seems to occur first in the formation of zonular cataract, fissures, vacuolation, and degeneration following between it and the cortical layers from which it contracts. (In support of this view the lecturer mentioned several cases in which zonular cataract had occurred as the result of what may be called purely intra-ocular causes.)

There seems no evidence of any connexion between zonular cataract and congenital syphilis. The defective condition of the enamel of the teeth so frequently associated with the former is, as Mr. Hutchinson pointed out, quite different from the notched screwdriver condition found in the latter disease. Mr. Hutchinson[19] differs from Horner in attributing zonular cataract and defect of the enamel of the teeth to rickets; he considers the latter more probably due to a stomatitis from the administration of mercurial powders given for fits. He says: "In reference to the suggestion of the Zurich investigators that the peculiarities of the teeth, in the skull bones and in the general development, are all due to rickets, I must be allowed to say that it is as yet wholly unproved. I am not aware that any author has described what are so freely spoken of as 'rachitic teeth,' if that term be applied, as it is by Dr. Davidson, to the permanent set. Professor Vogel of Dorpat, in reference to the effects of rickets on the teeth, says that, 'as the disease disappears before the second dentition commences, these phenomena are not observed in the permanent teeth.' Yet it is upon the state of the permanent teeth almost solely that the diagnosis of rickets in the Zurich clinique is based; for in only 4 per cent. did Professor Horner find evidence of rachitic malformation in the extremities. The irregular formation of the skull, defects in symmetry of the face, and mental peculiarities when present are perhaps quite as easily explained by reference to the attacks of convulsions as by the hypothesis of rickets." Though, as Mr. Hutchinson says, it is not proved that rickets affects the permanent teeth, still it is very possible that it may do so. The germ of all the enamel organs of the permanent set are present at birth, and just those teeth which are most frequently affected—namely, the first molars, the incisors, and the canines—are the ones in which calcification commences during the first two years of life—i.e., at the time of the initiatory stage of rickets.

It occurred to me that possibly some evidence as to the etiological relation of rickets and lamellar cataract might be obtained from our Australian colonies, where I was informed rickets was a rare disease. I wrote, therefore, to my friends, Dr. Barrett of Melbourne and Dr. Symons of Adelaide, asking them for any information they could obtain for me on the subject. The result of these inquiries I recently communicated to the Ophthalmological Society. It may be briefly summed up as follows. In Adelaide rickets is a rare disease, and lamellar cataract very infrequent. In Melbourne rickets was until recently comparatively rare, that it is more common now, but that the severity of the affection is much less than in the Old World; lamellar cataract is exceedingly rare, and the honeycombed condition of the enamel of the teeth is not often met with. In Sydney, the oldest city in Australia, rickets is said to be as common as in England, but I have no statement as to its comparative severity. Lamellar cataract is less frequent than

[19] Brit. Med. Jour., vol. i., p. 308.

in this country. In Persia, a country I have recently visited, I found both rickets and lamellar cataract very rare diseases.

LECTURE II.

Delivered on Dec. 5th, 1894.

MR PRESIDENT AND GENTLEMEN,—Lord Sherbrook, an albino, during the latter part of his life became affected with cataract, and an operation of extraction with iridectomy was performed on one of his eyes. The surgeon who performed the operation brought the piece of iris to the laboratory at the Moorfields' Hospital for examination. It was thought it might show well the arrangement of the epithelium on the posterior surface of the iris, which in the normal eye is densely pigmented. The specimen was a mere fragment, and its preparation was not satisfactory; but its examination suggested to me the possibility of depriving sections of the eye of their pigment, and so allowing of a more accurate examination of the pigmented epithelium. The best way I found to effect this was to place the section from an eye which had been previously embedded in celloidin, first, into chlorine water, which can be readily made as required by soaking chloride of lime in water and filtering, then into water acidulated with hydrochloric acid (one minim to one drachm). The sections should be passed backwards and forwards between these two solutions until the pigment quite disappears, then after thoroughly washing in several changes of water they can be stained with logwood. The manipulation of the sections requires considerable care, as, after exposure for some time to the chlorine and acid, they have a great tendency to come to pieces—the substance of the cornea peeling off Descemet's membrane, the choroid separating from the uveal pigment layer, and so forth, in spite of the embedding celloidin Mr. Griffith has recently improved on this method, and has succeeded in bleaching portions of the eye *en masse*. A section of the iris which has been bleached shows quite distinctly that there are two layers of epithelium on its posterior surface. The anterior of these is continuous with the pigmented layer on the inner surface of the ciliary body and the posterior with the unpigmented layer or pars ciliaris retinæ. At the pupillary border of the iris these two layers unite, this union corresponding developmentally with the junction of the inner and outer layers of the secondary optic vesicle. The anterior layer consists of a single row of flattened nucleated cells. The posterior layer is the most deeply pigmented portion of the whole eye and the last to lose its pigment in the bleaching process; the cells in it at the root of the iris are elongated and wedge-shaped, the bases of the wedges being directed backwards, the result being that the posterior surface of the outermost part of the iris has a convoluted outline, the cells being arranged in little groups with depressions between them. On tracing the iris inwards these depressions become much shallower and separated further apart. From about its centre to the pupillary border it presents a smooth surface, the cells here being of a regular columnar shape. Throughout this layer the nuclei of the cells are situated in their posterior halves. At the pupillary border the cells in the anterior layer are not so flattened and are more quadrate in shape. It is this increase in the size of the cells in the anterior layer which makes the pigment on the posterior surface of the iris thicker at the tip than in the centre. The posterior layer of cells may be termed the pars iridis retinæ; and as in the hinder parts of the eye the two layers of the secondary optic vesicle become separated in detachment of the retina, so in the anterior part they may become separated and a space be formed between the two layers of pigment on the back of the iris. Slight detachments of this sort are seen frequently in various pathological states, especially in eyes of youthful patients. It is of more frequent occurrence than detachment of the whole of the pigment epithelium from the stroma of the iris, for the anterior layer, like the pigment epithelium in the posterior parts of the eye, has firm connexions to the mesoblastic structures overlying it. An effusion between the two pigment epithelium layers, when extensive and localised, will produce a cyst-like tumour of the iris. When not localised, extensive and following iritis, with occlusion of the pupil, a condition indistinguishable clinically from what is known as "iris bombé" is produced. The surgeon in performing an iridectomy in such a case removes the stroma of the iris and anterior layer of pigment, and then is probably surprised to find the coloboma still filled up with a layer of pigment, the posterior pigment epithelial layer. The pigment epithelium terminates usually at the pupillary margin of the iris; in certain pathological conditions it is continued round it on to the anterior surface, constituting what is known as ectropion of the uvea. This is most commonly met with in cases of glaucoma of some standing, and appears to be due to a shrinking of the iris, which ensues from the pressure of its root against the periphery of the cornea. The shrinking affects the anterior part of the iris more than the posterior, consequently the latter gets drawn round. It is not uncommon to find the ectropion of the uvea more in one part of the circumference of the pupil than in another. In such cases the iris is most shrunken where the ectropion is most marked, and where the root of the iris is most firmly adherent to the periphery of the cornea. The shrinking of the iris more in one part than another is rendered evident by an eccentric position of the pupil. As the result of these observations we may formulate the following rule, which is of some practical utility in operating for glaucoma—that when in a case of glaucoma the pupil is eccentric, and there is ectropion of the uvea, the iris is likely to be less adherent to the periphery of the cornea, in the position opposite to that to which the pupil is displaced, and where the ectropion of the uvea is most marked than elsewhere. This is, therefore, the most favourable position in which to do an iridectomy in order to remove the iris up to its extreme periphery.

Ectropion of the uveal pigment, besides occurring as the result of glaucoma, is sometimes also a congenital condition, and may give rise to a raised pigment nodule at the pupillary border. The arrangement of the pigment epithelium at the pupillary margin of the iris of a horse is very peculiar. The pupil of the horse is oval in shape, and projecting from its margin on one side is an irregular, nodulated, deeply pigmented mass, continuous with the uveal pigment layers on its posterior surface. In the eyes I have dissected this mass measured on an average 8 mm. in length, 3 mm. in width, and 3 5 mm. in height. In unbleached sections of it little can be made out of the arrangement or shape of the cells of which it is composed. It is very cavernous, and bloodvessels are seen coursing through it, continued on from those in the stroma of the iris. Bleached sections show the mass to be made up of flattened epithelial cells, which line and form columns between the numerous and variously sized circular spaces in it. Bleached sections of the human eye show that the pigment epithelial layer from the optic disc up to the ora serrata consists of but a single row of cells. In the ciliary body, protruding from this layer towards the ciliary muscle, are numerous little processes or down-growths, each consisting of a group of cells. These down-growths vary in number and shape in different portions of the ciliary body. The two parts where they are most numerous are just in front of the ora serrata and at the junction of the plicated and non-plicated parts. In the plicated part there are but very few of them, and those that exist are met with in the recesses between the ciliary processes. Most of the down-growths at the junction of the plicated and non-plicated portions are pear-shaped, the bulbous end of the pear projecting towards the ciliary muscle. Those in front of the ora serrata project outwards and slightly backwards; they are shorter and broader than the others, and some of them can be distinctly seen to consist of two rows of cells. By the examination and comparison of a number of bleached and unbleached sections of the ciliary region cut on the flat I have been able to distinctly make out that the cells of these projecting processes are arranged in rings with a central lumen.

[The arrangement of the pigment epithelium of the ciliary body in the ox, horse, and chimpanzee was shown to present similar down-growths to those which exist in man.]

Many ingenious experiments have during the last few years been performed for the purpose of determining the source of the aqueous humour and of the nutrient fluids of the lens and vitreous. That the aqueous was secreted by some part of the walls of the posterior chamber seemed likely by its accumulation behind the iris when the pupil became closed either by a complete ring of posterior or anterior synechiæ. It seemed improbable that it came from the iris, for in cases of aniridia, either congenital or traumatic, no alteration in its constituents or in its amount was noticed. Deutschmann[1] excised the iris and ciliary body from the eye of a rabbit, and found that the secretion of the aqueous was arrested, and that the vitreous shrank. Schoeler and Uhthoff,[2] adopting a

[1] Archiv für Ophthalmologie, Band xxvi., p. 117.

[2] Jahresbericht über die Wirksamkeit der Augenklink, p. 52. Von Prof. Schoeler.

method of subcutaneous injection of a solution of fluorescine originally suggested by Ehrlich, found that from four to ten minutes after such an injection the colouration could be detected coming through the pupil into the anterior chamber. On dissection of eyes excised at various periods after subcutaneous injection they found that simultaneously with, or immediately after, the colouration of the pupil some of the furrows between the ciliary processes were tinged with green. These green lines grew narrower in the direction of the equator of the eye and ended at the posterior limit of the processes; there was also a gradual colouration of the vitreous body proceeding from the ciliary processes and passing backwards. In an eye in which the ciliary processes had become atrophied or destroyed in consequence of previous cyclitis no colour entered the anterior chamber through the pupil, and on section the atrophied processes were almost entirely destitute of colouration.

These experiments seem to prove that the aqueous and nutrient fluid of the vitreous are secreted in the ciliary region. They are confirmed by those of Leplat,[3] who injected iodide of potassium subcutaneously, and after enucleation cut up the frozen eyeballs into zones, testing each zone quantitatively for iodine with starch. In the *Archives d'Ophthalmologie* for 1891 there appeared a series of articles by M. Nicati, in which he claims to have established, on histological, physiological, and pathological grounds, the existence of a glandular apparatus for the elaboration of the aqueous humour. His histological researches refer to rabbits' eyes, and he speaks of the pars ciliaris retinæ as the gland of the aqueous humour. These experimental researches go to show that it is in that part of the eye in which these little tubular down-growths of cells exist that the aqueous humour and the fluid which gives nutriment to the vitreous are secreted. These are the only fluids which are known to be poured into the eye. These tubular downgrowths open towards its interior, being only separated from the close vascular plexus of the ciliary region by a basement membrane. The inference that they are glands concerned in the elaboration of the aqueous humour and nutrient fluid of the vitreous seems to me irresistible. There is no evidence at present to show to what extent they are concerned in it; that they are the sole source of these fluids seems improbable, from their absence in rabbits' eyes and from the fact that epithelium similar to that lining the glands covers the rest of the ciliary processes. I first pointed out the existence of these gland-like processes of the pigment epithelium of the ciliary body in March, 1891.[4] Greef, who has since written on the subject, seems to think I referred to the recesses between the ciliary processes in speaking of glands, but can only have done so by failing to have read carefully the description I gave of them. Mr. Griffith,[5] in a criticism of my work read before the British Medical Association this year, agrees that the anterior group of processes are glandular in character, but considers that the posterior—those situated in the non-plicated portion of the ciliary body, which he finds are not always present—are really only rucks in the pigment epithelial layer due to alterations in the state of contraction of the ciliary muscle. The objections to this view of their nature are: (1) that when present they are distinctly tubular; (2) that there are no half-stages between a distinct tube and a single row of cells; and (3) that I have found them present in some and absent in other perfectly healthy eyes, hardened and prepared in precisely similar ways. I am at a loss to explain their absence in some eyes and presence in others. The anterior group of pear-shaped processes is always present. If they be glands we should expect to find them subject to the same diseases as secreting tubular glands in other parts of the body. We should expect to find them subject to catarrhal and suppurative inflammation; we should expect to find overgrowth of them in cases of chronic inflammation; we should expect them to be subject to cystic formation, and for them to be the starting points of tumours presenting a glandular character, either adenomata or carcinomata. I will now proceed to show that these expectations are actually fulfilled.

The disease, which was originally described by Wardrop in 1808 as aquo-capsulitis, and which is now generally spoken of as serous iritis, is, I believe, primarily catarrhal inflammation of the ciliary body and of these glands. The whole course of the disease points, I think, in this direction. I would interpret its symptoms as follows. It commences with congestion of the bloodvessels around the glands, which manifests itself as circumcorneal injection. This is not associated with pain and photophobia, as usually occurs in iritis. The secretion from the glands becomes augmented, causing increase in the aqueous humour and deepening of the anterior chamber. It also becomes altered in character, more albuminous than usual, and contains a few leucocytes, some pigmented epithelial cells which have desquamated from the surfaces of the glands, and some shreds of fibrin. These formed elements tend to gravitate to the lower part of the anterior chamber and to be deposited on the posterior surface of the cornea, forming the spots of "keratitis punctata," some of which are often pigmented, the pigment being derived from the desquamated cells above mentioned. Some of the leucocytes also collect in the meshes of the ligamentum pectinatum; this, together with the alteration in the character of the fluid, tends to hinder its exit from the eye, and, combined with the excessive secretion, readily leads to increase of tension, which is only temporarily relieved by iridectomy or paracentesis. As a result of these changes in the composition of the aqueous it becomes slightly turbid, which turbidity produces an alteration in the colour of the iris. This latter is not at first affected, and there is no tendency to the formation of synechiæ until in the later stages, when it has become secondarily involved. The vitreous is early noticed to contain flocculi. The course of the disease, as in all catarrhs, is very variable, and there is great tendency to relapses. Severe cases end in disorganisation of the structures which receive their nutrient fluid from these glands. Thus the vitreous shrinks, the lens becomes cataractous, and a condition of phthisis bulbi results. The histological appearances of sections from eyes affected with so-called serous iritis are quite in keeping with this theory of its pathology. There is some increase in the size of the glands, some irregularity and proliferation of their epithelium, enlargement of the bloodvessels in their vicinity, and a variable amount of round-celled infiltration about them. At the stage in the disease at which eyes are usually obtained for histological examination inflammation is not confined to the ciliary body, but has spread throughout the uveal tract. In the eye of a boy aged nine years, in whom the symptoms of this disease followed a wound from a knife, which was excised eighteen days after the injury, I found considerable cell accumulation between the ciliary muscle and the pigment epithelium, just in the region where these glands are situated. The dotted opacities on the back of the cornea are frequently spoken of as "keratitis punctata," a term which is of course inappropriate if this theory of their formation be correct, for they are not caused by an inflammation of the cornea but are deposits of inflammatory products on its posterior surface. In teased specimens of these deposits, besides round cells, pigment epithelial cells similar to those in the tubular down-growths of the ciliary body are occasionally found. The term "Descemetitis" for the condition in which these opacities are found is also inaccurate. I have a section of a cornea with dotted opacities on its posterior surface in which the endothelium lining Descemet's membrane can be traced continuous and unaltered in front of the accumulations of round cells. It is interesting to notice how a supposed analogy between the aqueous chamber and the large serous sacs of the body, such as the peritoneum and pleura, led to what for the patient must have been a very disagreeable form of treatment—viz., the internal administration of the oil of turpentine. Wardrop, Jacob of Dublin, and others thought the aqueous chamber to be a closed sac lined throughout with endothelium; this of course it is not, for posteriorly it communicates through the circumlental space with the vitreous, and the anterior surface of the lens capsule has no endothelial cells on it. Moreover, the lining membrane on the back of the cornea is unlike that of a serous cavity, which consists essentially of a layer of endothelial cells with bloodvessels external to them. Perhaps the most striking difference between the aqueous chamber and the serous sacs is that the former is a cavity containing fluid, while the latter in the normal state are only potential cavities whose walls are lubricated with fluid. Dr. Carmichael of Dublin, relying on this supposed analogy and on the apparently beneficial effect which turpentine administered internally had on cases of peritoneal inflammation, recommended the administration of the same drug when the supposed lining serous membrane of the aqueous chamber was the seat of disease. This treatment is still prescribed by some surgeons even at the present day. Besides the glands and secreting area of the ciliary

[3] Annales d'Oculistique, vol. xcviii., p. 89.
[4] Report of the Heidelberg Ophthalmoscopical Society, 1893.
[5] Ophthalmic Review, vol. xiii., p. 247.

body being primarily affected by a catarrhal inflammation, they may also become secondarily involved by inflammation starting in other structures of the eye; or in the course of a general disease in which the uveal tract is implicated the ciliary body may be the first part to be inflamed. In sympathetic ophthalmitis the early symptoms are similar to those described as typical of "aquo-capsulitis" or "serous iritis." The most striking and constant change revealed by the microscope in eyes affected with sympathetic ophthalmitis is the presence of groups of round cells scattered throughout the uveal tract. It can be easily understood that such an inflammatory nodule occurring in the situation of the glands of the ciliary body would cause the exudation of inflammatory products from them, which would be partly carried forwards into the anterior chamber and partly effused into the vitreous. In eyes affected with sympathetic ophthalmitis I have frequently found nodules of cells of this character thus situated. In the same way, should one of the nodules of round cells which occur in syphilitic uveitis be located in the glandular region of the ciliary body a like effusion would be expected and similar symptoms. Dots on the back of the cornea, deepening of the anterior chamber, and opacities in the vitreous are often met with in syphilitic affections of the eye.

In suppurative inflammation of the eye it is quite common to find purulent infiltrations of the vitreous obviously starting from the ciliary body, and pus cells can be traced forwards from the latter, between the iris and lens, into the anterior chamber, where an accumulation is seen at the lower part, constituting a hypopion. When inflammation of the ciliary body is of a plastic character the inflammatory bodies effused into the vitreous organise into fibrous tissue, and a band of fibrous tissue forms behind the lens across the ciliary region. This is spoken of as a cyclitic membrane; to it the detached retina is frequently adherent. In such cases there is often considerable overgrowth of the pigment epithelium of the ciliary body. This overgrowth presents a characteristic arrangement of its cells in the form of cylindrical gland-like tubes. Just as in chronic inflammation of other glandular surfaces hyperplasia of the glandular structure occurs, so here. I cannot do better than quote a description of this condition which has been given by Alt,[6] and with which my own observations quite coincide. Speaking of plastic cyclitis and cyclitic membranes, he says: "Meanwhile the cells of the uveal layer have also undergone proliferation. The whole layer appears very much thickened, and grows into the cyclitic membrane in an irregular way. We also observe, however, frequently a more typical kind of proliferation of the cells of the uveal layer in the shape of cylindrical tubes, which grow into the cyclitic membrane and give off branches. In longitudinal and transverse sections these tubes appear like the glandulæ tubulosæ, or the epithelial cylinders of epithelioma. The cells of these tubes are either free of pigment or pigmented. Their shape and arrangement with their branches have given some writers (Schieff-Gemusens) the idea that they were bloodvessels whose walls were filled with pigment. Specimens in which the bloodvessels have been injected with a coloured fluid, however, plainly show that they are different from bloodvessels. They appear, as stated, just like glands or epithelioma cylinders. Not all the cells originating by proliferation from the uveal layer are pigmented, and I am even convinced that the young cells of this layer are at first always unpigmented and form their pigment only later on. For this reason we find in cyclitic membrane the same tubular formations without any pigment at all, which can nearly always be traced backwards to a pigmented cell tube or the uveal layer itself." He gives woodcuts showing these cylindrical tubes.

It is by no means uncommon to meet with cystic spaces in the region of the ciliary body in eyes affected with very different diseases. Many of these spaces are due to the detachment of the pars ciliaris retinæ from the pigment epithelium. Brailey,[7] writing on this subject, says: "I have found even in the course of my usual microscopic examination the pars ciliaris retinæ detached from the subjacent pigment layer in about 10 per cent. of the cases of primary glaucoma. These detachments are frequently so localised as to give the appearance of little fluid-containing cysts, but sometimes they are of considerable extent. Very similar changes are found in association with the cyclitis which accompanies the disease, known clinically as iritis serosa. In this condition, however, the cysts contain some corpuscular elements." Kuhnt[8] mentions that he has frequently found cysts in the ciliary body due to the detachment of the pars ciliaris retinæ from the pigment epithelium as a senile change in eyes which have been altered by atrophic processes. Cysts due to the distension of the small tubular glands which I have found to exist in the ciliary body, should they occur, would differ from those due to the detachment of the pars ciliaris retinæ from the pigment epithelium in being bounded entirely by pigment cells. I have one specimen from an eye which had had cyclitis showing such cysts. Alt, in his book entitled "Lectures on the Human Eye,"[9] mentions and pictures what he calls "a tumour-like new formation of pigmented and unpigmented cell cylinders, starting from the uveal layer of the ciliary body and neighbouring choroid." The woodcut shows very distinctly tubules lined by epithelial cells, cut transversely and longitudinally. This tumour-like new formation growing in the region where I find these tubular glands I regard as an adenoma.

Professor Michel[10] removed the right eye of a woman aged forty-one years who had always enjoyed good health for what was supposed to be a melanotic sarcoma growing from the posterior surface of the iris and invading the ciliary body. Pathological examination of the eyeball showed that the growth, which was grey in colour, sprang from the ciliary processes. Microscopically the iris and ciliary muscle were seen to be quite free from any pathological formation, and the growth was found to consist of a mesh of connective tissue, in some of the spaces of which there were rows of cylindrical cells, arranged, he says, so as to present the appearance of a tubular gland. He concluded by describing the growth as endothelial and epithelial cancer. Amongst the specimens preserved in the laboratory of the Royal London Ophthalmic Hospital, Moorfields, I found an eye removed from a woman aged sixty-three years, who twenty-five years previously had had a severe blow on it from a fist, and two years subsequently had found that it was blind. It gave her no trouble until nine weeks previous to enucleation, when pain and inflammation set in. Except for the eye trouble she was in good health, and continued so for twenty-three months after its removal; since that time she has changed her address, and I have been unable to trace her. The eye contained a growth which was partially deeply pigmented, and sprang from the ciliary processes, invading the ciliary muscle and root of the iris. It was originally described as a sarcoma which had undergone mucoid degeneration. It was afterwards re-examined and shown by Mr. Solly at a meeting of the Pathological Society of London on April 15th, 1891, as "a melanotic growth from the eye which appeared to be epithelial." I have cut some more sections from this tumour and bleached them; there can be no doubt of the epithelial character of the cells. In some parts of the tumour they have undergone colloid degeneration; while in others, especially towards its base, which is the most pigmented part, they are grouped in parallel columns, cut in various directions. This growth I regard as a melanotic glandular carcinoma. As melanotic carcinoma is practically unknown in other parts of the body and it is extremely unlikely that a primary non-pigmented growth would give rise to a secondary deeply pigmented one, and as the patient made no complaint of any other growth during the two years she was under observation, I think there can be no doubt that the tumour was a primary one of the ciliary body. In March, 1893, Messrs. Badal and Lagrarge[11] recorded a case which they described as a primary carcinoma of the ciliary body. The patient under their care was a boy aged eight years. A peculiar appearance was noticed in his left eye soon after birth. When about five years old it became quite blind, and shortly afterwards commenced to enlarge. At the time of excision it was injected, there was a staphylomatous condition in the ciliary region, and by oblique illumination a rose-coloured reflex was obtained. A year after excision the child was in good health, and there was no sign of recurrence. Pathological examination revealed a new growth confined to the ciliary region and consisting of two unequal whitish nodules placed alongside each other. Microscopically the growth was seen to be composed of (1) regular tubules with a central lumen lined by a single layer of cylindrical epithelium; (2) similar tubules, filled with proliferating epithelial cells; and (3) collections of atypical

[6] Lectures on the Human Eye, p. 106.
[7] Royal London Ophthalmic Hospital Reports, vol. x., p. 384.
[8] Klinisches Monatsblatt, 1881.
[9] Ibid., p. 123.
[10] Archiv für Ophthalmologie, vol. xxiv., p. 140.
[11] Archives d'Ophthalmologie, 1892.

and deformed epithelial cells grouped and separated by thin strands of connective tissue. At the December meeting of the Ophthalmological Society in 1893 I showed a primary tumour of the ciliary body exhibiting glandular structure. It was removed by Mr. Rockliffe, who sent it to me for examination. The patient was a woman aged twenty-eight years; for six months she had noticed failure of vision in the eye, but it had only recently become inflamed and painful. Her health otherwise was quite good, and she had no symptoms of growths in any other part of the body. On section of the tumour the anterior part of it was seen to be deeply pigmented; the posterior part was devoid of pigment. Microscopically, the cells composing the central portions of the growth appeared very degenerate; they were much swollen and their outlines ill-defined. The more peripheral parts were less degenerated; the cells here were of epithelial character, and arranged in a way suggestive of a glandular structure.

To sum up, then, I find that there are situated in the region which experiments have proved to be the part from which this aqueous humour and nutrient fluid of the vitreous are secreted numerous little tubular processes of epithelial cells, which I can imagine to be nothing else than glands concerned in their elaboration; that the nature of these processes has been hidden by their pigment, and is only rendered evident in bleached sections; that these glands and other secreting cells of the ciliary body are, like secreting structures elsewhere, subject to attacks of catarrhal inflammation, which gives rise to the group of symptoms generally included under the term "serous iritis"; that as the result of chronic inflammation there may be considerable overgrowth of their tissue, which overgrowth preserves a glandular type; that they may become distended into little cysts, and that they may be the seat of tumours, either adenoma or glandular carcinoma. The development of the retina is a subject of great intricacy and one which requires further investigation. I have not myself made any special study of it, but in the examination of microscopical sections of human fœtal eyes I have been struck by the fact that in those about the third month its layers are quite undifferentiated, that it is then composed entirely of a mass of round cells with large nuclei and scarcely any cell protoplasm, some of them, however, having little spicules projecting from them. These cells closely resemble those which are met with in gliomatous tumours of the retina. So closely, indeed, is this resemblance that I feel sure that if a pathologist were shown a piece of fœtal retina in which the layers were undifferentiated under the microscope, and was told that it was a piece of a tumour, he would have no hesitation in pronouncing it a glioma of the retina.

[Mr. Collins then pointed out that there were great clinical, histological, and embryological differences between gliomata and sarcomata, and suggested that, as sarcoma represents the fœtal condition of the tissue in which it primarily grows, so glioma of the retina represents the fœtal condition of the retina.]

In an early stage in the development of the eye the mesoblastic tissue which surrounds the secondary optic vesicle consists of a mass of cells, there being no differentiation between the sclerotic and choroid coats. Later, in the part which is to become choroid the nuclei stain deeper and blood-vessels commence to appear. The cells of the part which is to form the sclerotic are gradually lengthened out and differentiated into fibres. The tissue between the two coats early becomes spaced out to form the lamina supra-choroidea and lamina fusca. The pigment in the branched cells of the choroid can be detected about the seventh month, but does not reach its maximum until after birth. It is exceedingly difficult to determine the exact date of the commencement of the elastic lamina or membrane of Bruch. I have certainly been able to make it out as a very thin layer as early as the sixth month. Its origin and mode of formation cannot be determined by the examination of embryological specimens alone. As in the case of the lens capsule, I think some valuable suggestions may be drawn with regard to it from a study of some of the pathological processes which occur in connexion with it. It is exceedingly common to meet in pathological specimens of the eye with little nodules of a hyaline substance on the inner surface of the elastic lamina, which present all the physical characters of that membrane. These hyaline or colloid bodies were originally described as a senile change, but they are met with in eyes which have been blind for some time from patients of any age and often quite apart from any signs of inflammation. Various opinions have been expressed as to their origin; these may be grouped under three heads—viz., (1) that they are thickenings of the hyaline membrane (Müller and De Wecker); (2) that they are due to a hyaline degeneration of the pigment epithelial cells lining the elastic lamina (Donders, De Vicenten, and Dimmer); and (3) that they are an excretion from the pigment epithelial cells (Leber and Meyer). *A priori*, it would seem more probable for these hyaline nodules to be the product of epithelial cells rather than outgrowths from an inert basement membrane like the elastic lamina. Dimmer has pointed out that if they were only thickenings of the elastic lamina we should expect to find them extending outwards towards the choroid as well as inwards towards the retina, which we do not. Their presence always on the inner surface of the elastic lamina is readily understood if they are regarded as products of the pigment epithelium. That they are not outgrowths of the elastic lamina seems to me conclusively proved by the fact that they may be found where no elastic lamina is present. Thus, in a specimen I have examined of a microphthalmic eye which had a cyst connected with it, ill-developed retina was found lining the cyst, but no choroid; in the retina, however, there were hyaline bodies presenting all the characters of those under consideration. Hess[12] also found bodies of a similar character in the lining membrane of cystic protrusions of the sclerotic, where no choroid was present, in two pigs' eyes. That they are the product of epithelial cells I think there can be no doubt; whether they are formed within the cells themselves or are an excretion from them cannot be so conclusively determined.

I have bleached several sections of eyes containing these hyaline nodules, thinking that when the cells were deprived of their pigment it would be easy to detect the presence of degenerative changes in them. The cells, which are often much flattened, are always outside the hyaline nodules, several of them often completely encircling the latter. The usual form of these hyaline or colloid bodies is that of little globules, the largest not so big as a pin's head. Occasionally, however, on the inner surface of the choroid much larger masses are met with, which are composed of layers of hyaline substance, with here and there flattened pigment epithelial cells between them. The appearance presented suggests that of numerous layers of the membrane of Bruch closely packed together. Such masses may occasionally be seen ophthalmoscopically as raised white elevations over which the retinal vessels course. I have known them diagnosed as sarcoma and tubercle of the choroid, the eyeball being enucleated accordingly. Their extreme chronicity is usually sufficient to distinguish them from these affections. Their position between the retina and choroid, the disturbance of the pigment epithelial cells around them, and the presence of some of these cells between the layers, all seem to point to the hyaline substance being the product of the pigment epithelium. Now, if it is possible for the pigment epithelium under the influence of a morbid stimulus to produce a substance which stains and reacts to reagents in precisely a similar way to the elastic lamina itself, it is reasonable to suppose that that membrane is originally produced from them, just as the hyaline capsule of the lens appears to be the product of the cells which line it. Additional evidence of this view of the origin of the elastic lamina is afforded by a case of cyst connected with a microphthalmic eye recorded by Rindfleisch,[13] in which the lining membrane of the cyst consisted of retina with well-developed layers, pigment epithelium, and an elastic lamina, but no choroid. If the elastic lamina is derived from the pigment epithelium it is epiblastic in origin, and should, strictly speaking, be classed as a layer of the retina and not of the choroid.

The choroid in places sometimes fails to develop—i.e., the mesoblastic tissue which surrounds the secondary optic vesicle fails to become differentiated into choroid and sclerotic. The inner layers fail to become vascularised or only a few large vessels form. It would seem that when this failure in vascularisation occurs the outer layer of the secondary optic vesicle in the part non-vascularised does not become pigmented, and at the margin of the patch there is often an excess of pigmentation. These patches of failure in the differentiation of the choroid give rise to what are known as colobomata. They occur, of course, most frequently in the region of the fœtal ocular cleft, but may be met with, as pointed out by Lindsay Johnson,[14] in any part of the fundus.

[12] Archiv für Ophthalmologie, Band xxxviii., Ab. 3.
[13] Ibid., Band xxxvii., Ab. 3, p. 192.
[14] Archives of Ophthalmology, vol. xix.

A CASE OF

CEREBELLAR ABSCESS SUCCESSFULLY TREATED BY OPERATION.

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THE patient, a lad aged sixteen years, was admitted to the General Hospital, Wolverhampton, on Feb. 6th, 1894. The following history was obtained, partly from the patient, partly from his parents. His father had noticed for the last six months that he was occasionally deaf, had a habit of putting his hand to the left side of his head, and sometimes spoke of a numbed feeling in his left ear. He had not been known to have any discharge from either ear before the present illness. During the Christmas week of 1893 he was confined to the house with headache and vomiting; but this passed off in a few days, and he remained at work apparently quite well till the onset of the present illness. This began on Jan. 20th with bad earache in the left ear. From that time up to the date of admission to hospital he remained in bed suffering constantly from severe pain in the head and back of the neck. On Jan. 23rd he vomited. On Jan. 25th pus was discharged from the left ear for the first time. Since Feb. 1st he had been unable to sit up and had lain constantly curled up on his right side, resisting all attempts to turn him. On Feb. 3rd his mother noticed that he shunned the light and that his eyes were turned upwards and inwards. He had previously had no strabismus.

State on admission.—The patient lay on his left side with his legs and body flexed. The respiration was not noticeably slow. The pulse was 60 and the temperature 97° F. The body and limbs were somewhat emaciated. He seemed drowsy and irritable, resisted turning or any disturbance, and shrank from the light. When questions were repeated several times he answered intelligently, gave a good account of his illness, and complained of pain all over the head, but especially in the forehead and left parietal region. The head and eyes were turned towards the right, and were kept in that position by rigidity of the muscles of the neck. To bring the head straight required much force, and caused the patient much pain in the neck. He was quite unable to sit up, but when held in a sitting position the head was drawn backwards as well as to the right. There was no swelling or œdema over either mastoid, but slight tenderness without any fulness along the anterior border of the sterno-mastoid muscle. The right ear appeared normal, but only just heard a watch at three inches. The left external meatus was much narrowed by swollen mucous membrane and filled with partly inspissated pus. Owing to the narrowness of the meatus only a smooth central portion of the membrana tympani could be seen. In this ear the watch could not be heard even on contact, but the tuning fork was heard at one inch. The eyes deviated together with the head towards the right, but with an effort the patient could still turn them completely to the left, the axes remaining parallel. During this movement the left eye "wobbled" slightly, and on looking upwards there was distinct nystagmus. When the head was forcibly retained in the straight position, and the patient was told to look straight forwards, he did so, but after a few seconds the eyes rolled slowly back towards the right. There were slight constant upward deviation of the left eye, slight proptosis of the same eye, and distinct widening of the left palpebral fissure. When the eyes were gently closed the upper eyelid did not quite meet the lower on the left side; but when both eyes were tightly closed no difference could be detected between the two sides. Apart from the points mentioned, the movements of both eyes appeared normal, and no oculo-motor paralysis could be detected. The pupils were equal, of moderate size, and contracted well to light. There was slight but distinct papillitis of the left optic disc. The right disc appeared normal. He complained of not being able to see well, but his vision was not tested. There was no paralysis of the face, tongue, or muscles of mastication, or of the limbs. The superficial reflexes and the knee-jerks were normal and equal on the two sides. There was no loss of control over the sphincters.

On Feb. 7th the condition remained unchanged, and the temperature was still subnormal. Respiration was noted for a short time to have a well-marked Cheyne-Stokes character. The patient had not vomited since admission. The optic neuritis was distinctly more marked in the left eye. On Feb. 8th there was no change except increased drowsiness. Abscess of the brain was diagnosed, and as it seemed uncertain whether it would be found in the temporo-sphenoidal lobe or in the cerebellum it was decided to perform the operation devised by Mr. Percy Dean.[1] This consists in first exposing the lateral sinus by a trephine opening one inch behind and half an inch above the centre of the external auditory meatus. Then, by enlarging the opening either upwards and forwards, or downwards and backwards, by means of bone forceps, either the temporo-sphenoidal lobe or the cerebellar hemisphere can be easily explored with a trocar. On Feb. 8th a semicircular flap with a two-inch radius was turned down behind the left ear, and the pin of a one-inch trephine placed one inch and a half behind and half an inch above the centre of the external auditory meatus. The addition of half an inch to the first of these measurements was adopted after measuring two adult skulls and making allowance for the age and sex of Mr. Percy Dean's case (a female aged fourteen), the patient having practically the head of a full-grown male. On removing the disc the groove for the lateral sinus lay in its posterior and lower half, but the sinus itself was not easily distinguished from the rest of the dura mater either by colour or feel. Neither the bone nor dura mater showed any sign of inflammation. After enlarging the aperture upwards and forwards with ordinary curved bone forceps the dura mater was incised and the temporo-sphenoidal lobe at once bulged into the opening. It was explored, with a fine hydrocele trocar two inches long, five or six times in various directions, but nothing was struck except about a drachm of clear fluid on one occasion, evidently from the lateral ventricle. After enlarging the bony opening downwards and backwards the dura mater was incised well below the lateral sinus, and the surface of the cerebellum exposed. This did not bulge, nor did it show any adhesion or other sign of inflammation on its surface. The same trocar, thrust inwards and forwards for about an inch and a quarter, struck nothing; but one of slightly larger calibre passed in the same direction at once allowed several drachms of thin, yellow, inodorous pus to escape. After dilating with sinus-forceps a tube was inserted and brought out through a hole in the base of the flap. The latter was sutured. The opening in the dura mater over the temporo-sphenoidal lobe was not sutured, owing to somewhat free oozing of blood from the surface of the brain or meninges. It was therefore dusted with iodoform and covered with a gauze plug, the end of which was brought out between the sutures of the upper border of the flap. No part of the bone removed was replaced. Chloroform was used as the anæsthetic, and the patient's condition, though somewhat critical, gave no special anxiety during the operation. The pulse, which was 64 a few hours before the operation, rose immediately afterwards to 80. The respiration was regular and slow throughout the operation, but immediately after evacuation of the pus it became deeper and stronger, forcing out a little gush of pus with each expiration. The patient had partly regained consciousness before he left the table. Twelve hours after the operation the temperature had risen to 99·2°. On the third day it touched the highest point—100·4°; after that it remained normal. The pulse was slightly accelerated for a few days; then it became normal. The respiration did not vary from the normal after the operation. Five hours after the operation he turned of his own accord on to the left side, having previously lain exclusively on the right, and the eyes moved normally without conjugate deviation or strabismus. The headache, together with some drowsiness and irritability, persisted for the first four days. On the fifth day he felt hungry, and the headache had almost gone. He was also able to see well enough to read large print. There was, however, well-marked nystagmus on looking straight downwards and on looking downwards and to the left. The wound, which was dressed twice daily, healed by primary union, except at the sites occupied by the gauze plug and the tube. The plug was removed on the sixth day. On the third day the discharge from the tube had almost ceased; it was then gradually shortened and finally left out in the course of the third week, leaving a short sinus which quickly healed. Nothing was done for the otitis beyond syringing

[1] THE LANCET, July 30th, 1892.

with boracic lotion. The discharge gradually diminished, and then ceased. He was allowed to get up in the fifth week, the wound being then soundly healed. He was seen and examined on April 3rd after his return from a convalescent home, and the following note was made: "He looks strong, fat, and well. Is able to walk without the least unsteadiness, but feels a little giddy if he turns his head suddenly. He thinks his memory is not so good as formerly, and has no recollection of the events immediately preceding the operation. There is no paralysis of any cranial nerve. The pupils are normal. There is no nystagmus in any direction. There is no weakness of grasp or incoördination of the hands. The knee-jerks are active and equal. Hearing: right ear, watch eleven inches, tuning-fork two inches and a half; left ear, watch sixteen inches, tuning-fork four inches. The right membrana tympani appears normal, and gives a normal sound on Politzerising. The left membrana appears normal, but gives a well-marked perforation sound on Politzerising. The scar is perfectly sound. The gap in the skull is not larger than a shilling; there is no bulging at this spot, but there is visible cardiac pulsation during excitement. He wears a small shield to protect this part from injury. At the present time he remains quite well, and is at work."

Remarks by Dr. DEANESLY.—So far as I have been able to ascertain, only five cases of cerebellar abscess successfully treated by operation have been published in this country. Of these, four were operated on by Dr. Macewen of Glasgow, and one by Mr. Percy Dean of the London Hospital. The present case, therefore, makes the sixth. In order to obtain a more adequate idea of the general clinical course of cerebellar abscess than is to be derived from even the most recent text-books, I have collected from the periodicals of the last ten years twenty-one cases more or less fully reported, together with two which have come under my own observation. An analysis of the conditions found in these cases gives the following results.

Age and sex.—Of the twenty-three cases fifteen were males, five females, and in three the sex is not stated. Two were young children aged three and four years, nine were from eight to twenty years, eight from twenty-one to thirty-one years, two were aged thirty-eight and fifty-two years respectively, and in two the age is not stated.

Morbid anatomy.—Purulent otitis media was present in all cases, in some cases on one side only, in others on both sides. The abscess lay in the anterior part of the lateral lobe of the cerebellum, on the same side as the disease of the ear (where this was unilateral), in all but two cases. In the latter the abscess was situated in one case on the inferior surface of the middle lobe, and in the other in the flocculus on the same side as the ear disease. In every case the abscess in the cerebellum was a single one. In the great majority of cases the abscess had demonstrably arisen by direct local extension of infective inflammation from the posterior surface of the petrous bone to the contiguous part of the cerebellar hemisphere. In a few cases, however, a layer of apparently healthy cerebellar tissue lay between the abscess and the dura mater over the temporal bone. In three cases, including that now reported, the ear disease was accompanied by no complication except cerebellar abscess, and there was not even any direct evidence of caries of any part of the temporal bone. In two of these the tympanum and mastoid cells were examined after death with the naked eye; in the third the otorrhœa ceased without any surgical interference within a few weeks after the successful evacuation of the cerebellar abscess, so that caries, if present, could not have been very extensive. In eight other cases more or less extensive caries of the tympanum or mastoid constituted the only surgical complication of the cerebellar abscess. The remaining twelve all presented, in addition to disease of the temporal bone, one or more serious complications, such as extra-dural abscess, sinus phlebitis, localised or general meningitis, or a second abscess in the cerebrum. The commonest of these complications, sinus phlebitis, with or without thrombosis, occurred in seven cases. Extra-dural abscess occurred in six.

Previous duration of otorrhœa.—The shortest duration was two months in a single case; in three others it was six months or less. In the remaining cases the period varied from two to fourteen years. The first case shows that a very short previous duration of otitis does not enable us to absolutely exclude the diagnosis of cerebellar abscess, although it is distinctly a point against it in any given case.

Deafness was only once stated to be absent on the affected side. Where the point is mentioned in the histories it was generally partial in character; in two only is it stated to have been absolute. Since absolute deafness must be dependent on an affection of the labyrinth or auditory nerve, it is obvious that the latter does not occur with sufficient frequency to make it of any diagnostic value in distinguishing between cerebral and cerebellar abscess, as is sometimes stated.

Optic neuritis is definitely stated to have been absent in three cases only out of the twenty-three. In eight the point is not recorded. In the remaining twelve it was present and generally well marked. In five cases it was definitely more intense on the same side as the abscess.

Headache was present in all, but the situation varied greatly. In some cases it was general, in others mainly confined to the affected side; in some frontal, in others occipital; in several both frontal and occipital.

Vomiting occurred in fourteen cases, was absent in three, and was not mentioned in the remaining cases.

Temperature.—Of the eleven simple cases—that is, cases with no complication beyond more or less caries of the temporal bone—a subnormal temperature occurred in some part of the course in five, in one it was normal throughout, in four there is no record, and in one only was the temperature raised throughout (99·2° to 103·8° F.). In the twelve complicated cases a normal or subnormal temperature occurred in the later stages in five and in the other seven there is no record of the temperature. In nearly all the cases, whether simple or complicated, the temperature was raised above the normal in the early stages; but in all, with one exception, it sank to normal or subnormal before operation or death. In nearly all the cases complicated with sinus thrombosis there were rigors or equivalent indications of rapid oscillations of temperature in the early stage. There was, however, a history of shiverings in one case where the lateral sinus was not thrombosed, although an extra-dural abscess lay over it.

Respiration.—Slowing of respiration was much less frequently noted than subnormal temperature. It was in many cases irregular, and in two cases had a well-marked Cheyne-Stokes rhythm. In two other cases repeated yawning was observed.

Pulse.—Mention of the pulse is frequently omitted in the notes. When mentioned it was generally abnormally slow or only slightly accelerated. Intermittence was twice noted, irregularity only once.

Mental condition.—In nearly every case in which this is noted there was well-marked slowness of cerebration and general apathy. In spite of this the majority remained perfectly conscious and intelligent up to a late stage, when stupor rapidly deepened into coma unless prevented by operation. Irritability and intolerance of light were noted in a few cases and in a few also delirium; the latter, however, was comparatively rare.

Motor and sensory paralysis. — Excluding paralysis or irritation of the facial muscles on the same side as the ear disease, motor or sensory paralyses were observed in only seven cases. In one (Macewen's first case) there were paresis and rigidity of the arm on the same side as the abscess, clearly pointing to local pressure on the motor track of the same side below the decussation of the pyramids. In another (Macewen's second case) there was well-marked word deafness, which was correctly referred to a second abscess over the auditory centre of the temporo-sphenoidal lobe. In a third case (McMurray) of right-sided abscess there was internal strabismus of the right eye, apparently referable to localised meningitis and pressure on the right sixth nerve. This was an uncomplicated case. In a fourth case (Hadden) there was double convergent strabismus with greater weakness of the left external rectus, and just before death the right pupil was larger than the left. This was an uncomplicated case with no post-mortem evidence of meningitis. The fifth case (Ballance, Case 3) had weakness of both external recti and anæsthesia of the face and forehead on the same side as the abscess, clearly due to an affection of the fifth nerve. This was a case of abscess of the flocculus. The sixth case (Macewen, Case 6)—one of left-sided abscess—had conjugate deviation of the head and eyes to the right side. This was a case with several complications, including internal hydrocephalus, which proved fatal without operation. The seventh case (the writer's) had conjugate deviation of the head and eyes towards the side opposite to that of the abscess, as well as slight constant upward deviation of the eye on the same side and widening of the same palpebral fissure. The pupils were unequal in one case only. In nearly

all they were sluggish; in a few there was stabile mydriasis combined with total blindness from optic neuritis or atrophy.

Rigidity of the neck and retraction of the head were noted in seven cases. In two cases the retraction and rigidity were associated with conjugate deviation of the head and eyes towards the side opposite to the cerebellar lesion. In two others it was associated with paralysis of the sixth nerves.

Reflexes.—These are very incompletely reported. Where mentioned the knee-jerks were either normal or rather sluggish. In one case the knee-jerk was absent on the affected side. In another both were exaggerated, and ankle-clonus was present also.

Nystagmus was present in four cases only. It is described as "rotatory" in one case; in another as "occasional lateral and vertical nystagmus"; in a third as "nystagmus" simply; and in a fourth (the writer's case) it occurred both on looking upwards and on looking to the same side as the abscess.

Affections of bodily equilibrium were noted in seven cases. In one there was a feeling of giddiness, but no unsteadiness on standing. In the second there was a feeling of giddiness on standing, and also a staggering gait. In the third there was a sensation of falling when lifted in bed, and an actual tendency to fall to the right side. In this case disease of the right ear had produced an abscess in the middle lobe of the cerebellum. In the fourth case three months before admission to the hospital there had been giddiness, staggering gait, and a tendency to fall towards the left side (the side of the abscess); the same patient sat up suddenly in bed and turned a somersault a few days before the operation. In the fifth there were giddiness on standing, a staggering gait, and a leaning to the affected side in walking. In the sixth simple vertigo was noted. In the seventh there was a slight tendency to fall forwards; this was a right-sided abscess.

Results of operation.—The cerebellum was explored for pus in twelve of the twenty-three cases. In the remaining cases either no operation was undertaken, or, if so, the cerebellum was not explored. Of the twelve cases of operation six were successful. Of these the four successfully operated on by Dr. Macewen were all difficult and complicated cases; the other two were comparatively simple.

The above analysis, perhaps, justifies me in making some general observations on the diagnosis and treatment of cerebellar abscess. In dealing with any case of ear disease in which serious head mischief is suspected, the first points which the surgeon has to settle are the probable locality and extent of the mischief. In many cases the symptoms are merely those of pent-up septic matter in some part of the temporal bone or of general septic intoxication or infection. In these cases there are usually great local pain, often signs of local inflammation over the mastoid, and always considerable fever. In cases where there is sinus phlebitis or thrombosis the characteristic rigors, or at any rate rapid and extreme oscillations of temperature, are seldom absent. In some cases of this sort there may also be local signs of thrombosis of the jugular vein. The symptoms of general pyæmia associated with ear disease in no way differ from those of pyæmia originating in any other site. If, therefore, the case presents no symptoms which might not be produced simply by the tension and absorption of pent-up septic matter, the surgeon may conclude that the disease is wholly outside the dura mater. If, however, either without or in addition to symptoms of septic absorption or tension, there are any symptoms of pressure on the brain, either general or local, he may at once conclude that there is mischief inside the dura mater which no mere removal of bone, however free, will relieve. Of the symptoms, indeed, commonly referred to as evidence of general increase of intracranial pressure, there is hardly one which, taken singly, may be accepted as unequivocal evidence of this condition. Headache may of course be simply due to local mischief in the bone. Vomiting may be caused by septic intoxication. Optic neuritis may occur both in extradural abscess—that is, an abscess between the dura mater and the inner surface of the cranium—and in sinus thrombosis. I do not think, however, that either mental sluggishness (slow cerebration) or a persistent subnormal temperature occurs unless there is mischief inside the dura mater; and if either of these two symptoms be associated with slow pulse and respiration, or with vomiting and optic neuritis, cerebral abscess or meningitis is certainly present. This diagnosis will, of course, be quite conclusive if there are in addition any signs of local irritation or local paralysis of the brain or cranial nerves. Having determined the existence of some intradural mischief, the surgeon has next to decide on its probable nature and position. There are practically only three intradural complications to be considered—namely, general meningitis, abscess of the temporo-sphenoidal lobe, and abscess of the cerebellum. Localised meningitis within the dura mater, as regards diagnosis and treatment, cannot be distinguished from abscess, and need not therefore be separately discussed. The diagnosis of general meningitis rests on the presence of symptoms of multiple or diffused brain lesions, either irritative or paralytic, soon followed by signs of general brain compression, and always ending in coma and death. The comparative rarity of more than one cerebral abscess following ear disease has already been mentioned. Consequently, any evidence pointing to the implication of several distant parts or of both sides of the brain or cranial nerves points strongly in favour of meningitis rather than abscess. Nevertheless, it must be remembered that an affection of cranial nerves, even on both sides, may be due to pressure of an abscess or to a localised extension of meningitis from it. Again, in a case of general meningitis the period of general cerebral irritation may have been transient and unnoticed, or the case may come under observation with signs of general brain compression, but without any focal symptoms. Such a case might be difficult to diagnose from one of abscess. The temperature, however, of meningitis is usually high, with small oscillations, and does not often fall to subnormal till shortly before death. Delirium, too, is often present. Lastly, the onset is usually very sudden and its course brief and always fatal. Acute general meningitis is the only intracranial complication which has been known to develop during a first attack of acute otitis. It may, however, occur at any stage of chronic otitis either in children or adults, and in contemplating any operative measures it is the first condition to exclude, if possible, since there is little hope of doing anything for its cure.

In the majority of cases in which brain abscess is due to ear disease localising symptoms are absent. The diagnosis of abscess then rests on the presence of some or all of the indications of increased intracranial pressure (slow cerebration, subnormal temperature, slow pulse and respiration, headache, vomiting, and optic neuritis) and the absence of those indications of general meningitis which have just been mentioned. In such cases the only indication of the side of the brain in which the abscess is situated is afforded by the presence of unilateral ear disease, or of more severe local ear symptoms on one side where the disease is bilateral. Localising symptoms are, however, sometimes present, and in the twenty-three cases of cerebellar abscess were met with in twelve. Judging from these the most significant symptoms pointing to the cerebellum are—(1) disturbance of bodily equilibrium, (2) nystagmus, (3) retraction of the head and rigidity of the neck, (4) paralysis of cranial nerves, and (5) paralysis of a limb on the same side as the abscess. In many cases two or more of these symptoms occurred in the same case and rendered the diagnosis easy. The association of disorders of equilibrium with disease of the cerebellum is of course familiar. Both clinical and experimental evidence point to the fact that they are immediately produced by a lesion of the middle lobe of the cerebellum, and since this may equally be produced by pressure from a tumour or abscess in either lateral lobe they do not enable the surgeon to localise the side of the lesion. The indications afforded by the tendency to fall to one side or the other are somewhat contradictory. Ballance gives reeling towards the side opposite to the lesion as one of the diagnostic signs of cerebellar abscess. In the cases which I have analysed, however, in two there was a tendency to lean or fall towards the same side as the lesion; in one, in which the abscess was in the middle lobe itself, the tendency was to the right side; and in another, in which the abscess was in the right lobe, there was a tendency to fall forwards. In neither of these cases was there any paralysis of the limbs which might have complicated the observation.

As regards nystagmus, although its clinical association with cerebellar disease has long been known the exact mechanism of its production is still uncertain.

Retraction of the head with rigidity of the neck is of common occurrence both in tumours of the lateral lobe of the cerebellum and in basic meningitis. The condition common to both these diseases and the probable cause of the muscular spasm are irritative pressure on the pons or medulla. This pressure may affect one side or both sides. In the former case conjugate deviation of the head

and eyes to the side opposite to the abscess may occur, and would be explained by pressure on the side of the pons adjacent to the abscess and irritation of the motor tracks to the affected muscles above the decussation of the pyramids. Paralysis of cranial nerves, when brain abscess has been diagnosed from other evidence, is a distinct point in favour of its being situated in the cerebellum rather than in the temporo-sphenoidal lobe, since it is usually due to pressure or local meningitis, which is obviously more likely to extend to these nerves from the cerebellum than from the more distant temporo-sphenoidal lobe. The sluggishness of the pupils in some cases, and their complete paralysis with dilatation in others, must be referred rather to general increase of intracranial pressure or to optic atrophy than to local lesions of the third nerves. Dr. Risien Russell, after ablation of one cerebellar hemisphere in animals, noted skew deviation of the eyes and proptosis. Something a little resembling this occurred in the writer's case of cerebellar abscess. The skew deviation, however, was not complete, since, although the eye on the side of the lesion deviated upwards, the opposite eye did not appear to deviate downwards. The proptosis also was noted only on the side of the lesion and may have been only apparent owing to the slight widening of the palpebral fissure which was also present. In Dr. Risien Russell's animals, moreover, both phenomena were transitory.

Paralysis of the limbs from pressure on some part of the motor track occurs oftener in the case of temporo-sphenoidal than of cerebellar abscess, but is not common in either. The only example I have been able to find in a cerebellar abscess is the paralysis of the arm on the same side as the abscess. The diagnostic value of such a symptom is obvious, since in the absence of a second lesion on the opposite side it clearly points to pressure on the pons or medulla below the decussation of the motor paths.

The method of operating adopted by Dr. Macewen in all his cases was to first open the mastoid antrum and to carefully examine the adjacent parts by enlarging the opening as occasion required. He has shown, and anyone may easily verify his statements on a skull, that in this way it is quite practicable to examine, not merely the middle ear, mastoid antrum, and cells, but also the tegmen tympani and the lateral sinus. In this way he has followed up the local extensions of the disease either forwards and upwards through the tegmen tympani into the temporo-sphenoidal lobe, or backwards to the sigmoid sinus or cerebellar fossa. The affected parts of the temporo-sphenoidal lobe or cerebellum can not only be examined in this way, but an abscess in either situation can be evacuated and drained through the open mastoid antrum. In most cases, however, Dr. Macewen, after following the disease from its origin to either the brain or cerebellum, makes a second opening for drainage directly over the affected part: in the case of the brain, by a trephine opening just above the auditory meatus, and for the cerebellum by an opening just behind and below the curve of the lateral sinus. In the extremely complicated cases with which Dr. Macewen had to deal, it cannot be doubted that this procedure was the best which could have been adopted. Pent-up matter in the middle ear or mastoid, extradural abscess, thrombosis of the lateral sinus, and abscess of either the brain or cerebellum may all be present in a single case; and in this way they may all be followed up and dealt with from one opening in the bone, and there is no possibility of overlooking any important complication. All brain abscesses are, however, not of this complicated character. In many cases a single abscess in the brain or cerebellum is the only important lesion, the ear disease which gave rise to it being so slight as to require no operative interference or being, at any rate, of entirely subordinate importance. The case now reported is a good example of this kind, but nearly one half of the cases which I have analysed were almost equally uncomplicated. In such cases I believe the operation devised and carried out by Mr. Percy Dean, which was followed in my case, is by far the best procedure to adopt. This single trephine opening immediately over the lateral sinus not only enables the latter to be examined and, if necessary, dealt with, but enables one with the greatest ease and expedition to explore either the cerebellum or temporo-sphenoidal lobe, or both. The value of this fact, in view of the frequent absence of any localising indications, is obvious. When the brain abscess has been dealt with the antrum may not require to be opened, or if it does it may be safely deferred to a later time, after the more pressing complication has been relieved.

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PAPILLOMA OF THE SEPTUM NASI IN A MAN AGED EIGHTY-TWO YEARS, COMPLICATED WITH RODENT ULCER OF THE NOSE; SOME REMARKS ON NASAL PAPILLOMATA.

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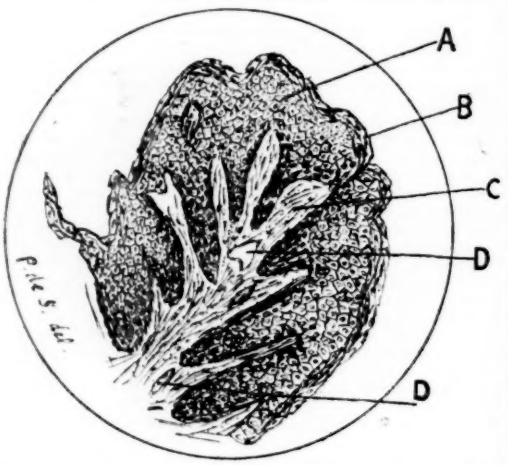
ON June 8th, 1894, a man eighty-two years of age was admitted into St. Matthew Ward, Westminster Hospital, under Mr. Cowell, suffering from a papillomatous growth occupying the left anterior nares and originating from the septum nasi. He presented, also, on the external surface of the nose on the right side a small rodent ulcer. The case seems to me worth recording—firstly, on account of the rarity of true papilloma nasi; secondly, on account of the plurality of neoplasms; and, thirdly, because of the rarity of a benign growth starting into existence at so old an age. I have to record my best thanks to Mr. Cowell for permission to publish the case.

A little over five years ago the patient noticed a small pimple on the inner and upper part of the left nostril which very gradually increased in size. He had never had any pain in it, but had had a few attacks of slight epistaxis from that nostril. During the last year the growth had grown more rapidly and now occupied the whole of the left anterior nares. About a year ago he noticed a disagreeable smell emanating from it and there was an occasional foul discharge from the nostril. This smell was also noticed by other people. He came to the hospital on account of the inconvenience caused by the blocking of the left nares and consequent obstruction to nasal breathing, and the protrusion of the growth and occasional discharge. The patient is an exceedingly hale old man of particularly bright intellect. He is in very good general health and has not been losing flesh. His family history is good. He has never had any nasal or throat trouble before. There is no history or evidence of syphilis. About a year ago he noticed a small hard pimple on the external surface of the right side of the nose; it irritated him, and he consequently used to scratch it frequently; it became ulcerated, and has very gradually extended in area; it has caused him no pain. He is quite certain that there was no pimple or ulcerated surface there before a year ago. On examination of the patient it was noticed that the left anterior nares was occupied by a large darkish mass distinctly protruding from the nasal cavity, and causing marked dilatation of that side. On examining with the finger it was found that the tumour was freely movable; that it entirely blocked the left anterior nares, and that it could by gentle pulling be withdrawn to a considerable extent from the nostril; it was pear-shaped, distinctly pedunculated, and soft to the touch, but not friable. The naked-eye appearance of the neoplasm was as follows. It was a very markedly papillated growth, the part extruded from the nostril being covered with a thin blackish crust, and that contained within the nares being of a moderately pink colour; the tumour was made up of small branched processes, subdividing again and again, and connected with the parent tissue by small narrow stalks, the whole resembling a miniature cauliflower in appearance. Its size was that of an ordinary walnut. By gently pulling on the growth and holding it to one side and passing a nasal speculum (the growth could be pulled sufficiently far to one side and out of the nostril to permit of the use of the nasal speculum) the peduncle could with ease be traced up to its attachment at the upper and anterior part of the septum,

close to the junction of bone and cartilage; the peduncle was very distinct, long and thin, and the surface of the bony septum where it was attached looked healthy, and was in no way infiltrated or "stiff." There was no pain or hæmorrhage on manipulation, and a probe could be passed round the peduncle. The rest of the nasal cavity was healthy, there being no other growths: the nasopharynx, pharynx, and larynx were normal. There were no enlarged glands, submaxillary or otherwise. On examination of the external surface of the nose a small hard oval ulcer covered with a brownish scab was found occupying the borderland of nose and cheek and on a level with the lower border of the nasal bone of the right side: it was about the size of a threepenny piece, flattened and irregular, with slightly raised and indurated edges, and discharged a little watery fluid under the scab. It was painless, and there were no enlarged glands.

The intra-nasal tumour was diagnosed as a true papilloma on the following grounds: the very slow growth of the tumour—namely, over five years; the absence of pain, friability or frequent and severe hæmorrhage, the pedunculated appearance, free mobility, and want of any infiltration at its attachment to the septum, the absence of glandular enlargement and ulceration, and the general good health of the patient. Throwing some doubt on the diagnosis of benign tumour were: (1) the seat of origin of the growth, many authorities holding that any growth springing from the septum nasi should be looked upon with very grave suspicion, Plicque[1] going so far as to say, "A polypus inserted on the septum must, in fact, always be regarded as of malignant nature"; (2) the increased rapidity of growth within the last few months; (3) the age of the patient; (4) the presence of a malignant growth—rodent ulcer on the external surface of the nose. It was possible that the neoplasm originally benign was becoming malignant in character. The growth was removed on June 19th, the peduncle being snipped across with scissors as close as possible to its attachment to the septum, and the cut surface cauterised. There was scarcely any bleeding. The nostril was packed with strips of iodoform gauze. No anæsthetic, general or local, was employed. The growth measured 1¼ in. in length and 2½ in. in circumference. Microscopic sections were cut and examined by Dr. Hebb, pathologist to the Westminster Hospital, and he kindly reported to me that the nature of the growth was benign and that of a true papilloma. I append a drawing of the



microscopic appearance of the growth. It will be seen that it consists of a stroma (C), which forms branching processes extending towards the free surface and consisting of fibrous tissue in small quantity, and bloodvessels (D); that the surface of the stroma is covered with several layers of epithelium (A), the most superficial being flattened squamous cells (B). There is no small cell infiltration of the base of the growth, or ingrowths of epithelium. I have already enumerated the main points that were considered in the diagnosis; but, though clinically and microscopically the evidence is in favour of the growth being innocent, I cannot say that in my own mind I feel quite satisfied as to its non-malignant nature. The very late age—namely, seventy-seven—at which the growth first started is very suspicious. Surely it is very uncommon for a simple papilloma to start into existence so late in life. The site of origin also is much in favour of malignancy, though I certainly would not go so far as Plicque,[2] who regards any polypus growing from the septum as malignant. There is no doubt that perfectly innocent tumours, papillomatous and otherwise, do grow from the septum nasi, and many such cases have been recorded, though generally in young patients. Taking, therefore, into consideration the great age of the patient, the seat of origin of the tumour, its increased rapidity of growth, and the presence of a rodent ulcer on the nose, I question whether the macroscopic and microscopic appearances favouring non-malignancy are not thereby more than neutralised.

If the literature on the subject of nasal papilloma be consulted it is found that the disease is in the experience of most authorities very rare. Hopmann[3] states that he met with papillomata in 14 cases out of 100 of nasal polypi, and always on the inferior turbinate bones; Schaeffer 20 times in 182 cases of intra-nasal polypus. Both these authors, however, seem to have included in their cases tumours which were by no means true papillomata, such as pedunculated papillary sarcomata, angiomata, and adenomata, the number of true papillomata being very small indeed. Ingals[4] reported a case under his care of warty growth springing from the septum within about 1½ centimetres of the nostril, and measuring about 7 c.m. in diameter by 17 mm. in length, and with a base as large as the diameter of the growth. It was removed with the snare and the base cauterised with chromic acid. Within a week, two or three small warty growths appeared on the floor of the nostril and the anterior end of the inferior turbinate bone, and others later, on the septum. Altogether there were many recurrences of similar growths, at least twenty-five to thirty being removed at intervals. Microscopic examination proved the growths to be papillomata. The patient was eventually quite cured. Ingals also mentions a case of warty growth, growing from the septum in an elderly lady, which he successfully removed, and which did not recur. These were the only two cases of the disease he had met with. Jarvis met with two cases only in his practice and in neither case did he consider the growths to be true papillomata, one being in his opinion a teleangeiectatic polypus, the other an epithelioma which at first resembled a benign growth. J. Wright[5] states: "Out of several hundred nasal tumours and hypertrophies removed, it has been my fortune to see but one case of what I regard as nasal papilloma." In his case the growth was the size of a split pea, and grew from the septum. Delavan states also that true papilloma in the nasal fossæ is a rare disease. Butlin[6] reported a case of papilloma of the septum occurring in a girl thirteen years of age, which hung down from the upper part of the front of the nares, nearly blocking the passage, and which was successfully removed with the galvano-cautery, and did not recur. Its microscopic appearance was that of a true papilloma. Moure[7] also agrees that nasal papillomata are very rare. Two cases occurred in his clinic which to the naked eye could not be distinguished from papillomata, but which, when examined microscopically, were found to consist of granulation tissue and hypertrophied mucous membrane.

Noquet[8] reported a case of true papilloma, and also an account of another case which he took to be of the same nature; the microscopic appearance of the latter, however, showed mucous tissue covered by cylindrical epithelium developed in the form of papillary projections. Mackenzie[9] says they are of infrequent occurrence and generally situated on the inner surface of the alæ nasi and in children. He met with only five cases of what he regarded as true papilloma. Wright[10] mentions as additional published cases those of Michel[11] and Zuckerkandl.[12] In both

[1] Journal of Laryngology, vol. iv., p. 194.

[2] Ibid.

[3] Archiv für Pathologische Anatomie und Physiologie und für Klinische Medicin, No. 93, 1883, p. 213.

[4] Transactions of the American Laryngological Association, 1889, p. 64.

[5] Ibid., 1891, p. 44.

[6] St. Bartholomew's Hospital Reports, vol. xxi., 1885.

[7] Centralblatt für Laryngologie, 1889-90, p. 324.

[8] Revue de Laryngologie, June 1st, 1891, No. 11, p. 339.

[9] Diseases of the Throat and Nose, vol. ii., p. 377.

[10] Transactions of the American Laryngological Association, 1891, p. 52.

[11] Krankheiten der Nasenhöhle, p. 72.

[12] Anatomie der Nasenhöhle, p. 70.

these authors' cases there was no microscopic examination. Aysaguer[13] mentions two cases, but also unconfirmed by microscopic examination. Verneuil[14] mentions one case, Cozzolino[15] two cases, but not examined microscopically; Nuthall, of St. Louis, one case of true papilloma; Solis Cohen[16] one case with a similar growth in the larynx. Bosworth, in his book on "Diseases of the Nose and Throat," states that he only met with one case out of 200 intra-nasal growths. McBride[17] speaks of tumours occurring on the inferior turbinate bones, septum and floor of the nostril, and characterised by their papillary appearance. He treated a case in which masses of tissue of this nature grew from the floor and adjacent septum, and which when examined microscopically showed the structure of a soft fibroma.

There is no doubt that some confusion has been caused by the publication of several cases of nasal papillomata which, on further inquiry and examination, especially microscopically, have been proved to be of a quite different nature. The cases mentioned by Hopmann as papillomata were mostly hypertrophies of the tissue of the turbinate bones, and indeed most of the so-called papillomata of the inferior turbinates are papillary hypertrophies of the erectile tissue of these bodies. Microscopically the gland tissue and blood-vessels are found to be dilated, the epithelial covering proliferated, and the papillary processes become venous-like sinuses. This glandular and vascular development is very marked and differs altogether histologically from true papilloma. The term true papilloma (papillary fibroma, dendritic vegetations, have been suggested as better terms), in my opinion, should be limited to a growth composed of numerous papillary processes, single and undivided, or branched and giving off processes which again in their turn bifurcate, with a stroma which is fibrous, small in quantity, sometimes cellular, at other times dense, more or less vascular and with the surface invested by epithelium which is arranged in several layers. The epithelium, however much proliferated, should be quite distinct and defined from the connective tissue, and there should be no separate ingrowths of epithelium and no small cell infiltration of the deeper tissues. The greatest importance should be attached to the condition of the basement membrane or parenchyma of the tumour. Virchow especially points out the importance of a sharp definition between the proliferated epithelium and the connective tissue, as a distinguishing point between papilloma and epithelioma. The microscopic section already referred to shows well the kind of epithelial cells lining the papillæ, their numerous layers, the stroma, its fibrous nature and sharp definition from the proliferated epithelium.

Having determined upon what should be meant by a true papilloma nasi, pathologically and microscopically, a few words may be said as to its diagnosis clinically. The clinical symptoms and appearances of these growths are often most deceptive, it being often impossible to come to a conclusion without a microscopic examination. Especially do the papillary hypertrophies of the inferior turbinates simulate papilloma; and, as instancing this, I would again refer to the two cases of Moure, which had every aspect of papilloma to the naked eye and clinically, but which on microscopic examination proved to be hypertrophied mucous membrane and granulation tissue; also to Noquet's similar case. True papilloma usually starts at the ala nasi, or the anterior and upper part of the septum, and, as a rule, occurs in young people. It grows slowly, is fairly firm in consistence, does not bleed excessively, though very fairly vascular, causes no glandular enlargement, is pedunculated rather than sessile, is usually freely movable and does not implicate the skin or surrounding tissues; it is sometimes multiple, and, if thoroughly removed, does not recur. Malignant growths (epithelioma and sarcoma), on the other hand, may start from any part of the nasal cavities, are often soft and friable, and grow very rapidly, with pain increasing as the growth extends. They cause frequent and severe hæmorrhage, ulcerate, and implicate the surrounding tissues, are generally sessile, though a sarcoma may be pedunculated, are single, and sooner or later implicate the lymphatic glands. As to age, epithelioma occurs most commonly after fifty years of age, sarcoma between ten and twenty years of age. Infiltration and stiffening of the part from which the tumour grows and foul, dirty discharge are both grave symptoms. The family history should always be ascertained. In all cases a microscopic examination should be made, no matter what the macroscopic evidence may be. I would, however, agree with McBride that if the clinical appearances point to malignancy and the microscopic examination to innocence of growth, the former should be trusted rather than the latter. In conclusion, I would reiterate—(1) that true papilloma nasi is a rare disease; (2) that the majority of recorded cases have not been true papillomata; (3) that in many cases it is almost impossible to diagnose macroscopically whether a growth be benign or malignant; and (4) that in every case a thorough microscopic examination should be made of the tumour.

Since writing the above paper I have seen (November, 1894) the patient whose case I have related. The left anterior naris is quite free from any return of the growth, and nasal respiration is quite normal. The septum is healthy, and there is a tiny scar where the pedicle of the papilloma was attached. The rodent ulcer on the exterior of the nose has recurred locally.

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[13] Annales des Maladies de l'Oreille, No. v., 1885, p. 335.
[14] Bulletins et Mémoires de la Société de Chirurgie de Paris, 1886, p. 658, No. 12.
[15] Revista Clinica e Terapeutica, No. 2, February, 1887, p. 75.
[16] Revue de Laryngologie, 1889, p. 151.
[17] Diseases of the Throat, Nose, and Ear, p. 295.

CASE OF HYDROPHOBIA; NECROPSY.

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THE following notes are very interesting, as the symptoms were well marked and typical during life and the post-mortem signs were quite pathognomonic of the disease.

A man aged thirty-nine first came to consult me on Oct. 15th, 1894, at 9.30 A.M. He complained of feeling very ill, with stiffness about the back of his neck and inability to sleep. On the previous day at dinner-time he first noticed a slight difficulty in swallowing liquids. This he had attributed to sore-throat, the after-effect of a severe cold from which he had been suffering. On examination there was nothing in the condition of his throat to account for the symptoms. I inquired if he had recently or at any time been bitten or scratched by a dog, but he firmly and persistently denied having at any time received any such injury. On further examination of his limbs and body I discovered a slight scar on the left forearm which was recent. This scar, he stated, was very painful, and he distinctly remembered that he had caused it with a rusty piece of pipe on Sept. 23rd. The tongue was clean and his evacuations normal. The temperature was normal. I ordered him to go home and to go to bed, and prescribed large doses of bromide of potassium and tincture of hyoscyamus to be taken every two hours, and to induce a copious sweating by drinking hot fluids. At 4 P.M. I visited the patient. He said he felt much worse, was cold and shivered; he had not slept, and had not sweated. The temperature was 99·4° F. The respiration was slightly quickened. He had taken three doses of the bromide and hyoscyamus, and drank some warm milk in my presence, though, as he stated, with difficulty. I gave him a hypodermic injection of morphinæ sulphas (½ gr.) with atropinæ sulphas ($\frac{1}{75}$ gr.), and ordered him into one of my beds in the Wigan Infirmary the same night. Before leaving I again inquired as to any history of a dog bite, but neither the patient nor his relatives had any recollection of any such injury, though they admitted that he had been a dog fancier all his life. He complained of more pain in the scar on his left forearm and had been poulticing it. On the 16th I visited the patient in the Wigan Infirmary and found him much worse. Well-marked symptoms of hydrophobia had developed. His reflexes were exaggerated and there was general hyperæsthesia of the skin and special senses. Any attempt to swallow liquid, even the sight of fluids or hearing liquid poured from one vessel to another, any loud noise, or sudden draught of cold air caused intense clonic spasm of the pharynx and diaphragm. He could swallow solids. The respiration was slightly quickened, but every minute or two he took an involuntary deep sighing inspiration, and there was painful contraction of the diaphragm. The face was flushed, and the head hot, aching, and throbbing; the body was bathed in perspiration; the bowels had been well moved;

the urine was scanty. The temperature at 2 A.M. was 100·2°; at 10 A.M. it was 99·6°. The hypodermic injections of morphine and atropine had been continued every fourth hour, but the patient had not slept. He had been fed with nutrient suppositories, and occasionally a little milk or beef-tea had been given by the mouth when the patient had been able to swallow. A relative now stated that on or about July 15th the patient was followed home by a strange young dog, which scratched his finger and caused slight bleeding. He paid no attention to the injury, and until now, when reminded of the fact, had quite forgotten the occurrence. As the patient had had no sleep and the clonic spasms were gradually becoming more frequent, the hypodermic injections were discontinued, and he was prescribed one drachm of chloral hydrate per rectum every six hours and twelve grains of carbolic acid (240 minims of a 1 in 20 solution) hypodermically every six hours. On the 17th the patient seemed about the same, and had slept for a few minutes at different periods during the night. The spasms seemed to have been less frequent and not so severe in character for a period of about one hour after each rectal injection of chloral hydrate and after each hypodermic injection of carbolic acid solution. The highest temperature since the previous day was 100·8° at 6 A.M. He complained of great thirst, with very scanty viscid saliva. With the object of allaying the thirst I ordered a rectal injection of one pint of warm saline solution, and the nutrient suppositories to be replaced by enemata of peptonised meat and peptonised milk every two hours alternately. This seemed to allay the thirst, but during the day there supervened "sputation," and he expelled from the mouth large quantities of coloured viscid saliva in all directions. In the evening he began to reject both the nutrient enemata and rectal injections of chloral hydrate. The urine was very scanty and contained urates, but there were no signs of carboluria. On Oct. 18th the patient was much worse. The spasms were fearful, and the patient had acute mania; also hallucinations of sight and hearing with delirium. He had had no sleep. He had become dangerous, having attacked the house surgeons and the nurse; so it was necessary to place him under forcible restraint. It had been impossible to take the temperature since the previous night, when it was 101° at 6 P.M. The rectal injections of chloral hydrate or nutrient enemata were only administered with great difficulty, and the amount of physical force required greatly intensified the spasms. The prick of the hypodermic needle also aggravated the symptoms. During the day the patient had many convulsive attacks and gradually became worse. Hypodermic injections of morphia and atropine were again resorted to, but he died from syncope at 9 P.M., or about five days from the onset of the disease.

Necropsy.—Rigor mortis was well marked. There was a slight scar on the left forearm, but no trace of any inflammatory action about it. No mark of any scar was seen where the dog bite had been. The thorax, heart, and pericardium were healthy. The lungs were red and congested, and filled with frothy mucus; here and there small hæmorrhages had occurred. The tongue, pharynx, œsophagus, and trachea were removed together. The tongue was enlarged, swollen, and injected, and near the base there was distinct and well-marked hypertrophy of the papillæ. At the root there were several varicose veins. The pharynx was intensely injected, especially about the region of the epiglottis, where there was a dark ring passing all round the pharynx and enveloping the epiglottis in front. The œsophagus was injected, and exhibited many varicose veins with small hæmorrhages, especially on its posterior wall. The trachea was injected, and showed small hæmorrhages. The stomach was injected and exhibited dilated veins and many submucous hæmorrhages. The spleen was dark in colour, enlarged, and hæmorrhagic. The kidneys were injected and showed evidence of parenchymatous nephritis. The brain and vessels were intensely injected. There were extensive small-cell infiltration into the subarachnoid space, many small hæmorrhages, and several patches of commencing softening in the grey matter. The medulla and cord were much injected, and there was infiltration of the perivascular sheaths with leucocytes. The membranes of the cord exhibited small hæmorrhages and varicose veins.

Dr. Barron of Liverpool was present at the post-mortem examination and saw the case previously while in the infirmary. He has seen about twenty cases of hydrophobia, and this is the third case I have had in my practice. It is now eleven years since I published my last case,[1] and in those days little or nothing was known of M. Pasteur's treatment of hydrophobia. As to treatment, now, when the actual symptoms have developed, we are still powerless, our new drugs are not more beneficial than the old, and I feel convinced that successful results in this fatal disease will only be attained by early inoculation by M. Pasteur's method. It is a subject for deep regret that we are still without a Pasteur Institute in this country, and it is still more deplorable that a great country like India with its millions of inhabitants has no institute of its own, but that patients have to take a three weeks' journey to Paris when every day is of vital importance. In conclusion, I desire to thank Dr. Barron for the kindly interest he took in my case.

Wigan.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

PERICRANIAL GRAFTING IN THE CASE OF A VICTIM OF THE HURRICANE IN THE MAURITIUS IN 1892.

BY HASSAN C. N. SAKIN, M.B., C.M. EDIN.

THE patient, a woman aged twenty-one years, was admitted to Ward 10 of the Civil Hospital, Mauritius, on April 30th, 1892, the morning after the hurricane, under my care, suffering from scalp wounds. She related that at about 4 P.M. on the previous day she heard the "crackling" of the house whilst the wind was blowing very strongly, and that it was about 9 P.M. when she knew where she was. She said that she had been picked up unconscious by some one about 8 P.M., and carried to a neighbour's house. She remained there all night and was conveyed to the Civil Hospital next morning. She was five months pregnant. The principal wound measured antero-posteriorly and curving to the right eight inches in length; another starting at a point three and a half inches from the anterior of the above and radiating to the right temple was four inches long. Both wounds presented a most frightful appearance. The flap was hanging over the patient's right ear, covered with dirt, such as stone dust, pieces of broken leaves, and the patient's hair matted together; the second flap was hanging posteriorly, covered as the former, both leaving the bone quite bare, the pericranium adhering to the flaps. The edges of the flaps having been shaved and cleansed from all foreign substances with bichlorde of mercury (1 in 2000), I proceeded to readjust the flaps by strong catgut sutures (silver wire not being at hand), leaving at the same time spaces enough for suppuration and syringing. The wounds were dressed with a piece of lint soaked in carbolic oil and iodoform and a capeline bandage applied. They were daily dressed until the suppuration had almost ceased and the grafts (mentioned below) planted, when they were dressed every other day. On the third day the suppuration was so profuse that the sutures gave way. I then allowed the flaps to remain in apposition by means of the capeline bandage. Gradually the pus diminished and the second flap began to unite with the third flap. I then applied cotton pads to prevent bagging, and at the same time pressed the flap and pericranium against the cranium to hasten union. By this time the suppuration had almost ceased, and in order to fill up the gaps of uncovered bone left by my being unable to bring the edges of the flaps together I thought that I might try to graft these bare parts with the pericranium of some animal in order to get the bone covered and at the same time prevent caries. For this purpose I obtained a chicken of from fifteen to twenty days old, and proceeded to remove the scalp and pericranium together. Having done so I removed as much of the true skin as possible, leaving pericranium cellular tissues, bloodvessels &c., which I cut into nine bits and planted on different parts of my patient's cranium. This was performed on May 21st, and out of the nine grafts three were successful. The grafts were each about one-sixth of an inch in diameter. By the end of the fourth day they began to spread by sending forth projections, which gradually lengthened and

[1] THE LANCET, Sept. 29th, 1883.

widened. In the meantime the bone was assuming a reddish appearance instead of white, as previously to grafting, and by the end of June 17th the whole bone was covered with the growth from the grafts. Strange to say, whilst the grafts were spreading their surfaces were granulating and getting thicker from the centres to the circumferences, and at the same time were secreting a whitish substance, which by the end of the 29th of the same month was seen to consist of distinct scales of bone, more marked at the spots where the grafts were originally planted, till almost all the surfaces were covered with such thin scales. As cicatrisation went on these scales were raised from their bed and removed by the attendant. The last two bits were removed by me, as they were pretty adherent at their centres to the granulations. I had no great difficulty in doing so, for their edges were already detached. In looking at the bony scales the surface next to the granulations was irregular, whilst the other was quite smooth. In holding them to the light they were almost transparent. My conclusion from the experience which I have now related is that caries may be readily prevented in cases where, owing to the extent of the injury to the cranium, it would seem inevitable, or, at least, may be cured with the greatest difficulty by the application of the pericranium of a chicken, such as I have here described, or other suitable animal.

Port Louis, Mauritius.

FRACTURE OF THE HYOID BONE; ACUTE BULBAR PARALYSIS; RECOVERY.

BY HENRY KAY RAMSDEN, M.B., CH.B. VICT.,
MEDICAL OFFICER TO THE TOWN HOSPITAL, GUERNSEY.

THE following unique case I deem worthy of record in the columns of THE LANCET.

In 1886 a man fifty years of age, while engaged in unloading a waggon, fell a distance of four yards on his head. He was feverish and delirious for the next fourteen days. He could speak with difficulty, but was unintelligible, and was unable to swallow solid food, and liquids only with difficulty. Saliva dribbled constantly from the angles of his mouth. On examining his neck I found the hyoid bone fractured in two places—at the junction of the body and greater cornua on each side. Later it was observed that the right half of the tongue had atrophied. The tongue was protruded to the right when the patient showed it. The lips, also, were slightly wasted; the dribbling of saliva required the constant use of a handkerchief. The speech was nasal, inarticulate, and unintelligible. In attempting to swallow liquids they frequently regurgitated through the nose. The treatment adopted was the wearing of stiff collars, attention to the general health, and the administration of tonics, notably iron and strychnine. The tongue gradually increased in bulk, and speech and swallowing slowly improved, so that solid food could be taken. At the present time, though speech is impaired, the patient can be easily understood. The dribbling of saliva has disappeared; he can blow and whistle, and with the exception of occasional pain in the neck is well. The fractures united by fibrous union. This case is very interesting; there is no similar case on record. Fracture of the hyoid bone is rare, especially from indirect violence, for the patient fell on his head with the neck forcibly flexed, causing such muscular action as to break the bone. The double fracture of the bone is worthy of note. The question of diagnosis affords some points of interest, and rests between—(1) acute bulbar paralysis, (2) injury of the hypoglossal nerve at the seat of fracture, (3) hæmorrhage into the vagus centre, and (4) labio-glosso-laryngeal paralysis. Labio-glosso-laryngeal paralysis is always fatal, and is progressive in its course. Hæmorrhage into the vagus centre would account for the difficulty of speech and swallowing, but would not account for the atrophy. Besides, there was no vomiting or any other symptom pointing to the vagus. The difficulty of swallowing and altered speech would not have been so extreme in unilateral lesion of the hypoglossal nerve, though the complication of the fractured hyoid bone would increase these symptoms and would be great. The extreme symptoms are in favour of acute bulbar paralysis. There were no epileptiform convulsions, and the arms and legs were not affected. These symptoms are by no means always present in acute bulbar paralysis. Impaired recovery of speech and swallowing may be assigned to the fibrous union of the bone, which would interfere with the movements of the tongue; but impaired recovery is common in acute bulbar paralysis. The actual lesion in the medulla oblongata was embolism or hæmorrhage, since the symptoms came on so quickly, most probably hæmorrhage occurring at the time of the accident.

Hauteville, Guernsey.

BACKWARD DISLOCATION OF THE WRIST.

BY H. HOLLIS, M.B., B.C. CANTAB.

A BOY fourteen years of age came to the General Infirmary, Northampton, complaining that he could not use his right wrist. Half an hour previously he had fallen backwards from a ladder about twenty feet on to some sand. His hand was partly flexed at the wrist and displaced slightly to the radial side; the fingers were also flexed and, including the thumb, could not be perfectly extended. There was no pain. On the posterior surface the upper end of the carpus with its convexity upwards and to the right was easily felt, the scaphoid lying higher than the other bones. Anteriorly there was a decided depression below the end of the radius, becoming less marked towards the ulnar side. The styloid processes were very easily felt below the skin. The dislocation was reduced by traction on the hand, but needed considerable force. Afterwards the boy could move the fingers and hand perfectly. There was some swelling of the wrist for a few days, but in a week the splint was removed and he resumed his occupation.

Northampton.

GENERAL EMPHYSEMA IN A CASE OF CAPILLARY BRONCHITIS.

BY J. R. GIBSON, M.D., D.P.H. GLASG.,
MEMBER OF THE GENERAL COUNCIL OF THE GLASGOW UNIVERSITY.

I THINK that general emphysema occurring in a case of capillary bronchitis is sufficiently rare for the following case to be briefly recorded.

A few weeks ago I was called to see a child aged three years and a half, who at my first visit had been unwell for three days and during that time had a violent cough. The temperature was 103° F., and there was great distress in breathing. There were fine râles all over the chest, and the cough was hard and frequent. The child's strength was fairly good. At this visit capillary bronchitis was diagnosed. On the second visit (the next day) there was fulness over the front of the neck, which on pressure gave the characteristic crackle of emphysema. This fulness rapidly spread to the back, chest, face, and eyelids. The child ultimately made a good recovery. The coughing had evidently caused compression of the air in the alveoli, and some of the vesicles had ruptured, the air then passing to the root of the lung, along the connective tissue, and from there up along the trachea and out to the subcutaneous tissue of the neck, from where it had spread to the regions mentioned.

Paisley.

ELECTION OF GUARDIANS AT KINGSTON-ON-THAMES.—Dr. W. E. St. Lawrence Finny, in offering himself as a candidate at the forthcoming election in the borough of Kingston-on-Thames for the board of guardians, lays particular emphasis on the following points in his programme. They should appeal to all sympathisers with the poor, irrespective of political parties. 1. That the infirmary shall be under the direct control of the medical officer, who should be if possible a resident, and directly responsible to the board only. 2. That urgent cases presenting themselves at the infirmary should, if considered advisable by the medical officer, be admitted at once without application to the relieving officer and without pauperising the whole family. 3. That nursing by paupers shall be abolished. 4. That one or more hospital trained nurses shall be on duty night and day. The proper treatment and nursing of the sick poor undoubtedly form a considerable portion of the duties of the board of guardians, and the presence of medical men on the board would materially assist in this work.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

LONDON HOSPITAL.

A CASE OF REMOVAL BY ABDOMINAL SECTION OF A SUBPERITONEAL FIBROID WHICH HAD SLOUGHED AND WAS LYING FREE IN AN ABSCESS CAVITY; REMARKS.

(Under the care of Dr. HERMAN.)

VERY rarely indeed is it necessary to open the abdomen to remove a subperitoneal uterine fibroid which is causing symptoms due to loss of its blood-supply, whether this is partial or complete. Sometimes a fibroid of this kind may become gangrenous in consequence of the rotation of a long pedicle, and from some associated or induced twisting of the bowel symptoms of intestinal obstruction may be caused. Cases in which successful operation for the cure of such conditions has been performed are on record; they are unusual. Somewhat more common is the gradual loss of blood-supply through a pedicle, and the formation of adhesions to surrounding parts, through which the vascularity of the growth is maintained. Sloughing of an intra-uterine fibroid is not infrequently met with, and its safe removal is a problem frequently placed before the obstetric surgeon. Operation through the abdominal wall to induce separation by sloughing of interstitial fibroids has been successfully carried out, but has found few imitators. We are not acquainted with other cases in which a separated fibroid has been found lying loose in a cavity amongst the intestines. For the account of this case we are indebted to the reports of Dr. Hodges, resident accoucheur, and Mr. Basden, clinical clerk.

A woman forty years of age was admitted into the London Hospital on Aug. 31st, 1892. She had been married ten years. She had believed herself perfectly well, and had been regular each month, until she became pregnant for the first time in October, 1891. She was delivered of a dead child on June 16th, 1892. She was in bed a month after delivery, suffering from febrile symptoms. Her medical attendant at the time of delivery noticed some lumps connected with the uterus, and as soon as she was able to get about sent her to Dr. Herman for his opinion. Dr. Herman's diagnosis then was that the lumps were subperitoneal fibroids. Two weeks before admission to hospital she was taken ill with violent pain in the abdomen, vomiting, and diarrhœa, and these symptoms continued so severely that she was sent into the hospital. During the early part of her stay in hospital she was (in Dr. Herman's absence) under the care of Dr. Lewers, who on Sept. 1st dictated the following note: "There is a swelling in the abdomen, mostly on the right side, reaching a hand's breadth above the umbilicus, irregular in outline, and feeling as if it contained fluid. The percussion note over the tumour is not dull, but is less resonant than elsewhere. By the vagina the uterus is found to be nearly fixed. There is indefinite hardness round the cervix. The sound passes three inches and a half with curve forwards." There were also physical signs of pneumonia limited to the base of the left lung. During the month of September the temperature ranged from normal to 102 5 F. There was slight but persistent diarrhœa. The tumour did not disappear, nor was there any more distinct indication of pointing. It was therefore decided to explore. On Sept. 30th Dr. Herman made a small incision in the middle line of the abdomen. The parietal peritoneum was found to be greatly thickened and adherent to the tumour beneath. In breaking down adhesions a suppurating cavity was opened into. A solid mass was felt in this cavity. The incision was extended and a fetid mass of solid greyish-white tissue presented at the opening. This mass was seized and pulled out. It lay quite free in the middle of the suppurating cavity. The cavity in which it had lain was shut off from the peritoneal cavity by adhesions above and to the right. To the left the peritoneal cavity had been opened into in breaking down adhesions, but the space thus opened seemed limited by more remote adhesions. The wall of the cavity had the characters of the uterine wall. The cavity in the peritoneum and the cavity in the uterine wall were stuffed with iodoform gauze. The wound was stitched up with the exception of an opening sufficient for drainage. The mass which had been removed was formed of interlacing fibrous tissue. It was evidently a uterine fibroid which had sloughed *en masse*. It weighed ten ounces. The temperature after the operation never exceeded 100°. The gauze was removed on Oct. 5th and the cavity washed out with a 1 in 40 carbolic acid solution; this was repeated daily. On the 19th a small fluctuating swelling was noticed to the right of the main cavity and not communicating with it. On the 20th the discharge from the wound was more copious, and this swelling had disappeared. A small strip of iodoform gauze was after this kept in the wound to ensure more thorough drainage. On Nov. 12th the wound had healed, and on Dec. 3rd the patient was discharged quite well.

Remarks by Dr. HERMAN.—The extrusion of submucous fibroids, either entire or broken up into shreds, is a natural mode of cure which is not very rare. Nor is it rare for degenerative processes in subperitoneal fibroids to set up local peritonitis. But the pathological process which occurred in the above case—viz., the separation and death of a large subperitoneal fibroid *en masse*, and consequent intraperitoneal suppuration around it—is, so far as I am aware, an event of extreme rarity; and on that account I think the case worth publication. The only possible treatment is the removal of the mass of dead tissue by abdominal section. The rarity of such a pathological process must generally prevent the diagnosis of it being made with any confidence; and, therefore, such cases can only be properly treated by acting on the rule to explore the abdomen, when there is serious disease within it, by incision, not by aspiration or tapping.

BRADFORD INFIRMARY.

A CASE OF RETENTION OF URINE DUE TO PHIMOSIS LEADING TO CYSTITIS AND PYONEPHROSIS; NECROPSY.

(Under the care of Mr. W. L. ROBERTS.)

THE consequences which may directly or indirectly result from a neglected phimosis have been often placed before the profession, and the list of them is, when complete, a very long one. Few, if any, of the text-books draw attention to the possible onset of such a condition as the following, in which the disease was as extensive as that met with in old-standing stricture of the urethra. This patient had suffered for twenty years from the phimosis, and the changes had therefore had a long time in which to develop. We have seen similar renal changes secondary to phimosis producing death in a child, but these serious results are luckily very rare. For the notes of this case we are indebted to Dr. T. Jason Wood, house surgeon.

A young man twenty years of age was admitted to the Bradford Infirmary on May 4th, complaining of inability to pass his urine. He said he had always had trouble in doing so, and stated that the penis became "swollen out" at the end during the effort. The patient was ill-developed, having the appearance of a boy twelve or thirteen years of age as regarded the development of the body, including the generative organs, and the intellect of one still younger. He was greatly emaciated. The temperature was subnormal. There were no physical signs of disease in the chest. The bladder was felt to be distended, and the enlargement could be made out on percussion. There was an extreme degree of phimosis present, and pus was oozing from the orifice. He was put under the influence of chloroform and circumcision was performed, the urine at once coming away in a full stream. The urine was extremely offensive, containing a large amount of pus. There was some narrowing of the meatus, but after this had been enlarged a full-sized instrument was passed into the bladder with ease. No stone was felt. The prepuce was firmly adherent to the glans. The bladder was washed out from day to day, and boric acid given internally; but there was only slight improvement in the condition of the urine. Although much relieved by the operation, the patient's general condition did not improve at all, and he died on May 15th, eleven days after admission to the infirmary.

During the last four days of life he had incontinence of urine. A fair daily amount was passed during the time he was under observation. The temperature only once rose as high as 99° F. He vomited once the day before death.

Necropsy.—On post-mortem examination the body was found to be greatly emaciated. All the organs were healthy in appearance except the urinary organs. The bladder wall was thickened and the mucous membrane was dark in colour and greatly corrugated. The ureters were greatly enlarged, forming tough, thick-walled tubes, measuring one inch across when flattened out and admitting the forefinger up to the second joint. At one spot the wall measured two millimetres in thickness. The pelves of the kidneys were much dilated and contained thin pus. The cortex was hollowed out by numerous sacculations, being in some parts less than one-eighth of an inch thick. No calculi were found.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Subdural Hæmorrhage in Pernicious Anæmia.—Cancer of an "Axillary Breast."—Cystic Kidneys.—Chondro-sarcoma of Humerus.

AN ordinary meeting of this society was held on Dec. 4th, Dr. PAVY, President, being in the chair.

Dr. W. P. HERRINGHAM showed a specimen of Subdural Hæmorrhage in Pernicious Anæmia. This hæmatoma of the dura mater (called "pachymeningitis hæmorrhagica" by some writers) was taken from a boy two years old, who died from pernicious anæmia. The dura mater showed two conditions: (1) blood adherent to its inner surface, both in small dots and also in two large patches in the frontal region; and (2) hæmorrhages in the tissue of the membrane itself, both near the hæmatoma and also in other parts, especially in the falx cerebri. The arachnoid was quite natural and free from blood. He remarked that the condition had been amply described in the Transactions of the Pathological Society,[1] but that the mode of their production still remained obscure, and that the condition of the other parts of the dura mater pointed clearly to that membrane, as in the present instance, as the source of the hæmorrhage.—The PRESIDENT asked what was the condition that led to the occurrence of these hæmorrhages, which might also occur in the skin, retina, and serous cavities.—Dr. TOOTH said that there were two theories: one advocated by Virchow, in which the hæmorrhage was regarded as having an inflammatory basis, and the other in which the hæmorrhage was regarded as the beginning and ending of the process. To this condition in the brain membranes Virchow applied the term "pachymeningitis hæmorrhagica." For his own part he failed to understand how the inflammatory theory had gained such a hold amongst pathologists. He admitted that in certain cases of pericarditis the lymph on the pericardium in a state of commencing organisation often looked much like a hæmorrhage, but in the case of the brain these clots peeled off, leaving a perfectly smooth surface devoid of inflammation. Dr. Sutherland had shown similar specimens obtained from the brains of children suffering from scurvy.—Dr. PYE-SMITH said the inflammatory theory had been received on Virchow's authority, but had never been fully accepted in England. Prescott Hewett years ago had described these cases as instances of simple hæmorrhage without inflammation.—Dr. PERCY SMITH said that in cases of general paralysis large hæmorrhages in this position were often found, and besides these there were smaller patches staining the fibrous layer of the dura mater, but without evidence of inflammatory action.—Dr. HERRINGHAM, in reply, thought that the hæmorrhage of pernicious anæmia could not own the same cause as the hæmorrhage of chronic insanity. Perhaps in both there was some disease of the bloodvessels, as had been suggested in hæmophilia. There was no doubt that in the specimens shown the dura mater itself was the source of hæmorrhage, for blood was found in its tissue as well as on its surface.

Mr. F. T. PAUL (Liverpool) showed a Scirrhous Tumour of the Axilla. The tumour occurred in a married woman aged twenty-nine years, who noticed at her fourth and fifth confinements a lump similar to those described by Dr. F. H. Champneys in her right axilla. On the second occasion it did not subside, but developed into a typical mammary scirrhus with infected glands. The tumour was excised, but recurred in the internal organs. Microscopically, the growth had the usual structure of breast cancer, but the tissue in which it originated was composed of a group of peculiar glands occupying about one square inch of the axillary skin and penetrating the deep tissues for about half an inch. These glands commenced below in breast-like acini and branching ducts. They were continued to the surface as large coiled ducts, some dilated and filled with milk-like secretion, others contracted with corrugated walls and cylindrical epithelium, like the nipple ducts, and others which were not more than three or four times the size of a sweat gland. They all had a striking longitudinally striated sheath of unstriped muscle. A little below the surface of the skin the ducts suddenly contracted to form a very smooth thick-walled tube, which discharged into a hair follicle. Normal sweat and sebaceous glands were present over the same area. The peculiar glands were probably derived from the patch of large axillary glands described by anatomists, but they appeared to have a sort of intermediate structure between sweat glands and breast, and were, moreover, allied to the latter both in the character of the secretion and in the variety of cancer which attacked them.—Dr. CREIGHTON said that the specimen was undoubtedly a scirrhous cancer of the axilla, and he did not think that a similar specimen had been previously described. His own opinion was that mammary tissue was present in the specimen, distinct from and independent of the peculiar axillary skin glands. Pathologically, also, he thought that the specimen presented two distinct conditions—a scirrhus of the mammary portion with a rodent growth of the sweat-gland portion.—Mr. BOWLBY said that Dr. Champneys originally described and analysed twenty cases of axillary lumps in suckling women. Some years later he had an opportunity of obtaining these lumps from two of the cases after the death of the patient. Whereas he formerly considered that these growths were an altered kind of sebaceous gland, he now, after microscopical examination, regarded them as altered sweat glands, the glands being exaggerated and overgrown, and the ducts emptying themselves on the surface of the skin and not into the hair follicles, as in Mr. Paul's case. There was a well-marked muscular coat and striation could be seen in all parts of the section.—Mr. JACKSON CLARKE agreed that the tissue in which the cancer was growing was mammary in character.—Dr. SNOW inquired if Mr. Paul was satisfied that the axillary tumour was wholly unconnected with the breast. There was often an axillary prolongation of the mamma in which the cancer might arise.—Mr. PAUL, in reply, said that he could not doubt that the acini were those of breast tissue and were continuous with the ducts seen in the upper part of the section. It was extremely unlikely that two forms of carcinoma would arise in two parts of the same organ, and the appearance, like that of rodent cancer above, was simply due to the closely packed cells of the carcinoma involving a gland duct. The growth was purely axillary, and was not connected with the breast.

Dr. PYE-SMITH showed a case of Megalo-cystic Kidneys in a man aged twenty-seven years who died in Guy's Hospital after only a fortnight's illness. One kidney weighed fifty-one and the other forty-eight ounces. The symptoms were those of chronic Bright's disease without dropsy, with hypertrophied left ventricle, increased tension, and retinitis. He compared these cases with the congenital cystic kidneys described by Virchow, and with others contributed to the Transactions of the Pathological Society since Dr. Hare's case in the third volume. He argued that clinically they were all cases of Bright's disease of the cirrhotic type, but remarkable for their early origin and slow progress. He also commented on the curious association of these cystic kidneys with cystic degeneration of the liver, pancreas, and brain, and considered that the different histological processes in the several organs involved caused a great difficulty in supposing that they had any other than an accidental connexion. He thought that probably not a few cases of very chronic Bright's disease occurring in children and young adults, not due to scarlet fever on the one hand or to gout or intemperance on the other, might belong to this hypertropic renal cystic cirrhosis.—Dr. ROLLESTON said that pathologically there were two classes of cystic kidney—the congenital cases and those that

[1] Vols. xliii. and xlv.

occurred in adults. In the congenital cases the dilatation depended on inflammation taking place about the apices of the papillæ, and the disease could be made out distinctly to progress from the medulla towards the cortex. The cystic kidney in adults, on the other hand, was connected with chronic interstitial nephritis and renal cirrhosis. It commenced in the cortex and progressed towards the papillæ. Two years ago, in conjunction with Dr. Kanthack, he described a case of cystic kidney in a child who died from albuminuria and convulsions, and in whom there was associated cystic disease of the liver. In that case the cysts of the liver appeared to be due to the formation of retention cysts following inflammation around the bile-ducts. They saw appearances which in the first instance might be mistaken for vacuoles in liver cells, but these were really distended bile capillaries which had become invaginated into the liver cells. The cysts occurring coincidentally in the pancreas were probably also retention cysts, but he could offer no explanation of the origin of those which commenced in the brain.—Dr. ALFRED EDDOWES had made the necropsy of a woman aged twenty-seven who died suddenly; both kidneys were found to be cystic, and there was a history of severe scarlet fever in childhood.—Dr. PYE-SMITH, in reply, said that some of the large cystic kidneys were congenital, while some were cirrhotic; but however they might differ in size, yet functionally the result seemed to be the same in all. He admitted that it was possible that the cysts in the liver were due to retention, but, on the other hand, it was remarkable how very rarely retention cysts were seen in hepatic cirrhosis.

Dr. HERBERT SNOW showed a Chondro-sarcoma of the Right Humerus removed in April last by amputation at the shoulder-joint from a well-developed young woman aged twenty-two years. There had been pain in the arm for twenty-one months, which latterly had become severe, but she had noticed the tumour for only five weeks. There was no family history of malignant disease. Hard work appeared to have been the sole exciting cause; there was no remembrance of any direct violence. The patient remained well at the present time. That gradual merging of well-organised tissue into the embryonic spindle cells of malignancy which was specially associated with the group of cartilaginous tumours[2] was well exemplified by the specimen, which presented three distinct zones: the upper of bone, the middle of cartilage, and the lower of spindle-celled sarcomatous tissue mingled with cartilaginous nodules. These tumours grew more or less slowly to an immense size, always eventually passing into sarcoma. Sir James Paget described one removed from the arm of a naval surgeon after forty years' growth. The patient got well, but died shortly afterwards, apparently from chest metastasis. These growths were specially prone to attack the upper end of the humerus. The question of causation was discussed. Traumatism or conditions involving chronic hyperæmia appeared to be the usual antecedents. He believed they were often due to residual nodules of unossified cartilage, and this explanation was almost certainly true as regards the multiple cartilaginous tumours found in the hands and feet of children. In the specimen shown the growth appeared to be of periosteal origin, but as the periosteum when irritated usually developed spindle-celled sarcomatous tissue only some additional reason was needed to account for the appearance of large masses of cartilage and bone in this group of neoplasms.—Mr. BOWLBY said it was not necessary to seek for a cartilaginous origin for cartilaginous tumours; for instance, these growths sprang from the testes and breast, where no cartilage was to be found. Cartilaginous tumours would grow as well from the periosteum as from residual unossified portions of cartilage.—Dr. SNOW, in reply, pointed out that the breast and testicle tumours were excessively rare. Cartilaginous growths arising in soft tissues like the parotid might even then be traced to cartilaginous remnants.

Mr. F. T. PAUL showed a card specimen of Calcifying Cutaneous Adenoma.

HUNTERIAN SOCIETY.

Syphilitic Disease of the Spinal Cord —Compressed Skull in an Infant —Gastro-jejunostomy for Pyloric Obstruction — Tabes Dorsalis without Ataxia.

AN ordinary meeting of this society was held at the London Institution on Nov. 14th, Dr. CHARTERS SYMONDS, President, being in the chair.

Mr. FRED. J. SMITH showed a case of Syphilitic Disease of the Spinal Cord. The patient was a man aged twenty-nine years, who had suffered from syphilis sixteen months before admission to hospital. Stiffness and pain in the back were first complained of last Easter, and about six weeks afterwards he was thrown out of a vehicle, but without sustaining obvious injury. Considerable muscular twitching, however, showed itself at the time, and in a fortnight rapid loss of power in the legs confined him to bed for three weeks. On Sept. 8th he fell down from weakness in the legs, and came into hospital on Sept. 13th. On admission the heart and lungs were apparently sound. He was quite unable to walk on account of weakness in the legs; motor power elsewhere was unimpaired. Sensation was considerably blunted over the lower extremities, and the transmission of impulses was apparently delayed, but complete anæsthesia was nowhere present, and temperature changes were correctly though slowly recognised. The knee-jerks and superficial reflexes of the lower limbs were exaggerated, ankle-clonus was slightly present, and the reflexes of the upper trunk and limbs were normal. The bladder was empty, the urine being normal, but constantly dribbling away without the patient's knowledge. The bowels had not been opened for ten days, but motions were eventually passed unconsciously. There was slight nystagmus and sluggishness of the pupils in reacting to light, the cranial nerves otherwise were quite unaffected. Improvement soon showed itself under the free use of iodide of potassium, increased to fifty grains three times a day. He has now fair control over the bladder and rectum, and can walk with the help of a chair pushed in front of him. Diffuse infiltration of the cord with granulomatous cells was diagnosed from the ingravescent character of the symptoms, their wide horizontal area, their onset fifteen or eighteen months after the primary sore, and the rapid recovery under treatment.

Mr. OPENSHAW showed an infant aged four weeks whose skull presented a well-marked Constriction above the zygomata and supra-orbital ridges and across the centre of the occipital bone. The two parietals seemed to be firmly ankylosed together. The mother's pelvis was said to be contracted; the labour, though not instrumental, had been prolonged.—Mr. TATHAM considered it to be a case of primary brain defect, with secondary skull change.

The PRESIDENT showed a woman aged forty-one years who had for some months presented typical symptoms of Pyloric Obstruction—viz., constant periodical vomiting of partially digested food, with pain and emaciation. Gastro-jejunostomy was performed last May, and the patient is now in good health, having only a firm movable tumour in the pyloric region. Especial stress was laid on the necessity for excising a piece of the stomach wall all round the aperture, and two cases were described in which symptoms of obstruction reappeared after gastro-jejunostomy. In one patient, who is still alive, the abdomen was opened and the jejunum reunited to the stomach, the old aperture having become closed. In the other patient occlusion of the aperture into the small gut was found post mortem.

Mr. MCDONNELL showed a man fifty-four years of age suffering from Tabes Dorsalis without Ataxia. His father is still alive, aged seventy-four, and the subject of paralysis agitans. The patient has been a soldier. When twenty years of age he had a chancre which healed in fourteen days without treatment. He also had symmetrical suppurating buboes in the groins, but no secondary symptoms. At fifty-one and a half years of age his sight became cloudy, and at fifty-three he was completely blind. At present his pupils are large and unequal, and do not contract in response to light. The feet can recognise heat and cold and pain, and can localise touch correctly. The sense of position is present in the feet and legs. There is no girdle pain, knee-jerk is absent, and since last February there is occasional involuntary passing of urine and fæces. There is no incoördination.

[2] Vide Paget's Surgical Pathology, Lecture xxvi.

LIFE ASSURANCE MEDICAL OFFICERS' ASSOCIATION.

Gout and Life Risks.

A GENERAL MEETING of this association was held on Wednesday, Nov. 28th, Dr. J. E. POLLOCK, the President, being in the chair.

Dr. E. SYMES THOMPSON, consulting physician to the

Hospital for Consumption, Brompton, and physician to the Equity and Law Life Assurance Society, read a paper on Gout and Life Risks. He said that the physicians of the Georgian era held that gout did not shorten life, believing rather that an attack "cleared the system," and by enforcing abstinence tended to prevent visceral disease. As a matter of fact long life was then quite compatible with an habitual recurrence of gouty paroxysms. In the present day, however, the altered style of living and inherited susceptibility favour the development of latent constitutional changes which have taken the place of the familiar seizures of former years. We regulate our diet and drink less port wine than our forefathers and thereby escape acute attacks, but we do not succeed in preventing functional hepatic disorders and secondary tissue changes. In the early days of life assurance, when "gout" meant a periodic recurrence of pain and swelling in the great toe, it was easy to decide upon an extra rating, applicable to all gouty cases alike. This plan commends itself to actuaries who believe that inequalities will be removed by the law of averages, and that the statistics of the office will show the sufficiency of the extra rating for the group. A medical officer cannot regard the question from the same standpoint. He must estimate the life expectancy of each gouty applicant, and must not impose one and the same rate alike on conspicuously marked cases and on those wherein the taint is no more than perceptible. A general average rating of, say, 25 per cent on the whole group can be secured only by adding more than the natural number of extra years in well-marked cases and by altogether excluding a considerable proportion. Rheumatic or rheumatoid arthritis will for the purpose of the present inquiry be reckoned as gout. Those who suffer from acute periodic attacks in the joints are less liable to constitutional deterioration than those in whom the disease, being latent, is passed over until the heart, bronchi, and kidneys become involved and tissue change is actually established. When cardiac softening and hypertrophy, granular degeneration of the kidney, or actual change in the liver can be detected, the proposal must of course be declined. Latent ill-defined cases of gout entail considerable risk, and the medical officer must be prepared to rate heavily and sometimes to exclude. In early life, quinsy, granular throat, and large tonsils are symptoms of this tendency. In later life these are replaced by signs of liver engorgement, clayey stools, intestinal catarrh, uric acid deposits, vesical troubles, herpetic, eczematous, or squamous eruptions, high arterial tension, hard full pulse, prolonged cardiac first sound, accentuated second sound, and intermittent pulse. Gout is often closely related to excess in eating or drinking. Intemperance may be suspected from such indications as a hurried manner, loud voice, bloodshot hollow eyes, flushed face, red spotty nose, tremulous tongue, engorged fauces, cold damp hands. In concert with Mr. Berridge, the late actuary of the Equity and Law Life Assurance Society, Dr. Thompson made an investigation into the invalid lives—i.e., those in which an extra rating had been made by reason of impaired health—and, although the number rated up for "gout" was only 73, the deaths were found to bear a marked relation to the underlying taint. If these had been healthy lives, accepted at ordinary rates, the deaths expected and allowed for during the period of observation would have been 13, but at the "office ages"—i.e., the ages at which they were rated—16 or 17 deaths were allowed for. The number that actually occurred was 21, of which only 4 were due to causes clearly unconnected with the gouty diathesis. These were No. 1 (ulceration of bowels), No. 2 (fall from a horse), No. 3 (jaundice, and tumour of liver), and No. 4 (senile gangrene). A gouty relationship may be assumed for the causes of death in the remaining 17 cases. Nos. 5 (pneumonia) and 6 (fever with lung congestion) may have owed their fatality to the gouty state existing twenty years before. Nos. 7 (anæmia and exhaustion) and 8 (syncope) are common modes of death in chronic asthenic gout, whilst No. 9 (congestion of the brain) is a frequent result of gout in the plethoric, and No. 10 (carbuncle) is obviously related to gout. Next in the list (Nos. 11, 12, 13) are three cases of heart disease, the second complicated with diseased liver and the third with granular kidney, the ages at death being fifty-seven, sixty-eight, and sixty-five years. Next come Nos. 14 (granular degeneration of kidney certified as "gouty") and 15 (albuminuria) which may be safely attributed to the same cause. The six remaining deaths were expressly certified to be due to gout. In Nos. 18, 19, 20, 21, death occurred within five years after insurance, and No. 14 may be grouped with them, giving a total of five cases in which the danger was so little realised by the medical examiner that the addition made was only three

No.	Actual age.	No. of years added.	No. of years from admission till death.	Causes of death.*
1	57	2	2	Ulceration of bowels.
2	28	3	3	Fall from a horse.
3	46	3	3	Jaundice; tumour of liver.
4	60	2	13	Senile gangrene.
5	44	4	22	Pneumonia.
6	42	3	19	Fever, diarrhœa, and lung congestion.
7	36	3	6	Anæmia and exhaustion.
8	70	1	3	Syncope.
9	33	3	19	Congestion of brain.
10	59	4	7	Carbuncle.
11	49	3	9	Heart disease.
12	49	2	19	Heart and liver disease (a woman).
13	51	5	14	Granular kidney and heart dilatation.
14	50	3	5	Granular degeneration of kidney (gouty).
15	35	3	12	Albuminuria.
16	37	3	21	Gout, kidney disease, and dropsy.
17	46	3	15	Pleurisy and pericarditis (from gout).
18	34	4	3	Gout and albuminuria.
19	40	3	3	Retrocedent gout.
20	42	15	4	Gout.
21	59	7	7	Gout with complications (stone).

* All are males except No. 12.

years in two cases, four years in one case, seven years in one, and fifteen years in one. This last was a considerable addition for a person aged forty-two years, and yet it was utterly inadequate to save the office from serious loss. The sum insured was £10,000, death occurred in four years; four annual payments at the office age (fifty-seven) would with interest at 4 per cent. amount to about £1800; the loss to the office was therefore more than £8000. A very large number of gouty subjects die between fifty-five and sixty-five years of age who, but for gout, would probably have lived for years. Of the whole 21 cases shown in the table not one survived for the expected time, even at the office ages with the extra rating. Those which most nearly realised the calculated expectation are the five following, and with respect to them it is fair to assume that the gouty constitution was instrumental in shortening life. Case 4, taken with two years added as sixty-two years of age, had an expectancy of 13½ years and lived 13. Case 5, taken with four years added as forty-eight years of age, had an expectancy of 22½ years and lived 22. Case 6, taken with three years added as forty-five years of age, had an expectancy of 24½ years and lived 19. Case 12, taken with two years added as fifty-one years of age, had an expectancy of 20½ years and lived 19. Case 16, taken with three years added as forty years of age, had an expectancy of 27¾ years and lived 21. In these five cases the additional rating was nearly sufficient, but in the remainder it was quite inadequate. No imputation is hereby made against the medical examiners of the Equity and Law Life Assurance Society, who usually show remarkable skill in the selection and rating of lives. Similar analysis of the experience of the Clerical and Medical Assurance Society showed that among 183 fatal cases rated up for gout, 127 deaths were attributed to causes probably associated with that disease; an increase in the premiums amounting to not less than 20 per cent. would have been necessary to meet the claims. The conclusion is that for cases of gout, whether undoubted or merely suspected, an extra rating of 10 per cent. is not sufficient. A 25 per cent. addition would have almost exactly covered the loss inflicted on the Equity and Law Life office by the cases above quoted. Dr. Thompson had collected details of the transmission of gout for several generations in one family. It was originally introduced by a woman whose eight sons and two out of three daughters were distinctly gouty. Of her forty-eight grandchildren six were distinctly gouty, and of her seventy-one great-grandchildren five were similarly affected. The study of gout in relation to life assurance shows that it is not, like phthisis, a diminishing risk, lessening as years advance, but that it is, on the contrary, an increasing risk, growing greater as years advance. Gout is, therefore, peculiarly suited for the "limited payment" or "endowment" system of assurance, as in this way the risk is likely to be adequately met before the claim occurs, and any addition which is made need not

be so high as in the case of a "whole life" ordinary premium. For the "reduced premium" system gout is peculiarly unsuited. In place of an extra rating some offices substitute a debt on the sum assured, but this plan has not met with general approval. At first sight it appears equitable and advantageous alike to insurers and insured, but the deductions are very heavy, and such policies are practically useless for purposes of marriage settlement or loans.

Dr. DOUGLAS POWELL, the vice-president, said the subject was one very difficult to discuss because the term "gout" was so vague. In cases with merely an inherited history, or where one or two attacks of gout had occurred with no discoverable physical changes, it was perhaps justifiable to charge the office rate, and he (Dr. Powell) was not quite sure that the office rate was not sufficient to meet these cases. Where special features were presented—in cases of high arterial tension, with some alcholic symptoms, a somewhat obscure first sound of the heart, and a highly accentuated second sound, with a urine of perhaps deficient specific gravity—an addition of from three to five years did not meet them. They were cases already gravely diseased and were to be considered as cases of positive illness. Gout seemed to him to be a case of habits, and he divided it into simple gout, lesions, and morbid habits—especially alcoholic habits. He could not but think that the very grave results attributed to gout were really due to gout *plus* intemperance—intemperance both in eating and drinking. Intemperance in eating it was almost impossible to eliminate, and in practical work one must deal with alcohol. The man who took "nips" was the man who spoiled statistics in this connexion. In practical work the medical examiner should be guided by the cases which came before him: hereditary gout, positive lesions, and cases of gout with intemperance, which should really be classified as cases of intemperance.

Dr. DE HAVILLAND HALL thought that Dr. Thompson's paper would very much strengthen the hands of life assurance medical officers. He himself used a modified form of classification. In those cases which at the time of application showed no symptoms of gout in the individual, but simply of heredity, if the applicant was over thirty or thirty-five years of age he might be taken at the ordinary rate. Gout before the age of thirty-five was generally inherited gout complicated with something in the individual himself. Then there were those cases in which gout had been acquired by the patients themselves. Dr. Symes Thompson looked upon an intermittent pulse as a sign of gout, but he (Dr. Hall) would rather regard that as associated with dyspepsia.

Dr. VIVIAN POORE, referring to Dr. Thompson's statistics, pointed out that a great deal depended upon whether the cases were of old or of recent date. Twenty years ago the urine was not nearly so methodically examined as at the present time, and there was a difference between subjective and objective gout. Many of the cases that were once called gout now get rated up for albuminuria. He had seen all the indications of gout brought about by excessive milk drinking.

Dr. BOOR CROSBY pointed out that in cases occurring in patients in the middle period of life the tongue should be examined, the circulation studied, and the urine tested for bile pigment and specific gravity with respect to the habits of the patient and the time at which he was examined. These had been his best guides for the last twenty years. Alcoholic degeneration was often ascribed to gout.

Dr. T. COLCOTT FOX thought it was rather late in the day to contend that gout was not a disease causing degeneration of many important organs of the body. In this country many intercurrent diseases took hold of people very easily. Gout commencing early in life was of practical importance, and so was the frequency of the attacks. The experience of American officers had been very unfavourable to gouty subjects.

Dr. THEODORE WILLIAMS gave some instances where gout had been avoided by careful living.

Dr. THIN, speaking with regard to milk diet, knew of a patient who developed an attack of gout after living on this form of diet for six or eight months. As far as his experience went, however, milk diet did not develop a gouty habit. In London he thought gout was often produced by the lime contained in the Thames water and sedentary occupations.

Dr. HERMANN WEBER thought that cases should be judged on their own individual merits.

Dr. NEWTON PITT wished to know the conclusions of Dr. Thompson as to the addition which should be made to cases of attacks of true gout, and to those which had shown no arterial degeneration.

Dr. T. GLOVER LYON, the secretary, thought that one of the chief points of the question was: The consideration of the cases of apparently healthy people who say they have occasional attacks of gout; occurring not before the age of forty, was there good reason to suppose that these lives were worse than any others? Dr. Symes Thompson's cases, being rated-up ones, did not help to solve the matter.

Dr. J. E. POLLOCK, the President, concurred in the main with Dr. Thompson's remarks that the rating for gout had been too low. A small addition to the rate did not compensate for increased risk in cases where there were signs of degeneration or intemperance. In otherwise sound cases, where the attacks of gout were only occasional, from five to seven years extra he considered sufficient.

Dr. THOMPSON said that the really essential point brought into prominence during the discussion was that a term like "gout" could not be regarded as a basis for really scientific investigation, but as years went on they would be able to get a far better arrangement of cases than those which he had laid before them. He did not think that cases in which milk drinking occurred were at all a numerous class. The results of the mortality experience of the office, soon to be published by the Institute of Actuaries, would add fresh knowledge to the subject under consideration.

CAMBRIDGE MEDICAL SOCIETY.

Cases of Nephrectomy.—Tuberculous Kidney.—Ergot in Obstetrics.

A MEETING of this society was held on Nov. 2nd, Mr. HYDE HILLS, President, being in the chair.

Mr. HEDLEY BARTLETT related the case of a girl seventeen years of age who was admitted into the Saffron Walden Hospital on March 26th, 1894. For the previous three months she had suffered from pain and a swelling in her left side which had been injured by a fall in March, 1893. The swelling had suddenly increased in size, there was constipation of five days' duration, with persistent vomiting. The temperature was 102° F. and the pulse 100. The abdomen was much distended, and on the left side there was a large, hard, nodular, semi-fluctuating, immovable swelling, dull on percussion, extending from the left ilio-costal space downwards and forwards to the left iliac fossa. The urine was scanty, purulent, and alkaline. A five-inch lumbar incision exposed a cyst which, on being tapped, yielded a little urine, followed by sixty ounces of foul-smelling pus. The cyst contained no calculus and was dissected out, the ureter and renal vessels were tied, the wound being drained and stitched. On March 30th uræmia set in, with jaundice, complete insensibility, dilated pupils, offensive breath, general convulsions, subnormal temperature, and hiccough. The bowels not having acted, a copious and very offensive motion followed the administration of seven grains of calomel and an enema. There being no improvement next day, the patient was treated by very hot baths for fifteen minutes and then packed in hot blankets; pilocarpine was also injected. Half an hour after the baths there was profuse sweating; half an hour later the convulsions disappeared and the temperature was 103·6°. Consciousness returned an hour later, and from the next day there was a rapid recovery.

Mr. W. GIFFORD NASH related six cases of Nephrectomy performed at the South Devon Hospital. Case 1 was that of a man thirty-nine years of age, who was admitted to the South Devon Hospital with a fluctuating swelling in the left loin, which on incision yielded about thirty ounces of pus. Twenty-five days later the kidney was removed and found to be riddled with tuberculous abscesses. The man recovered and fifteen months afterwards weighed 13 st. Case 2 was that of a youth nineteen years of age, who was admitted to hospital with a tuberculous abscess of the right kidney, which was drained and scraped. Nephrectomy was performed on the eighteenth day. The patient recovered. Case 3 was that of a man thirty-five years of age whose right kidney, weighing thirteen ounces, was removed. This was followed by vomiting, hiccough, convulsions, and death in ninety hours. The left kidney was much atrophied. Case 4 was that of a woman twenty-five years of age who was admitted to hospital with a renal fistula on the right side and no discharge of urine from the bladder, showing that the left kidney was useless. Soon afterwards pyonephrosis was established in the left side. The kidney was drained and the resulting sinus scraped six months later. The woman married, and four years after the

operation she became pregnant. Case 5 was that of a woman thirty-eight years of age suffering from a perinephric abscess. This was opened, and a kidney about the size of a testicle and adherent to the colon was removed. The operation was followed by a fæcal fistula, which lasted a week. Case 6 was that of a woman forty-two years of age with an intermittent hydronephrosis on the left side. Nephrectomy was performed. A loin urinal was worn for nine months, and the kidney was then removed. The patient recovered perfect health.

Dr. LAURENCE HUMPHRY showed a Cystic Kidney weighing about ten pounds containing pus and caseating tuberculous deposit. It was removed from a man twenty-eight years of age, who died from general tuberculosis.

Mr. W. J. MIDELTON then read a short paper to the effect that he had given Ergot to a considerable number of multiparæ after they had been several hours in Labour with good pains and had almost lost them, the os being dilated to almost the size of a five-shilling piece. The dose was about two drachms of liquid ergot, and the results were most satisfactory.—Dr. BOXALL strongly condemned the routine practice of giving ergot before delivery; but he and the other members who took part in the discussion were practically unanimous in the opinion that ergot was useful in causing contraction of the uterus after delivery.

LIVERPOOL MEDICAL INSTITUTION.

Sarcoma of Larynx.—Enterectomy for Gangrene of Bowel.—Successful Porro's Operation.—Exhibition of Specimens.—Vaginal Hysterectomy for Uterine Cancer.

A MEETING of this society was held on Thursday, Nov. 29th, Mr. CHAUNCY PUZEY, President, being in the chair.

Mr. PAUL and Dr. HUNT communicated a case of Extrinsic Sarcoma of the Larynx. The patient was shown to the society twelve months ago. She was twenty-one years of age, with a history of three years' difficulty in breathing. The disease apparently commenced in the cellular tissue between the larynx and pharynx; it spread upwards, and was visible about the upper end of the larynx, and downwards, surrounding the trachea. The microscope showed the tumour to be a spindle-celled sarcoma of mildly malignant type. The case was shown again to prove the correctness of the prognosis, since the progress during the last twelve months had been very slow, and the young woman was in better health now than when last seen. It was, however, necessary for her to wear a tracheotomy tube five inches in length.

Mr. PAUL and Dr. HUNT brought forward another patient who had also been shown twelve months ago. He was thirteen years of age, and had been operated on fifteen months ago for a solid Sarcomatous Tumour growing from the anterior wall of the Larynx. The new point in the case was that at the present time he was affected with an innocent papilloma of the larynx.

Dr. ALEXANDER showed a boy seventeen years of age, who was admitted to hospital in July last suffering from Strangulated Hernia. Four inches of gangrenous bowel were cut off, leaving an artificial anus. The boy's life being saved, on Aug. 1st the continuity of the bowel was restored by enlarging the wound, cutting off the congested ends of the gut, fixing a decalcified bone tube in the lower smaller end, and invaginating the upper large end over it by the method first described by Mr. Paul. The operation was quite successful; the advantages of this method of operation were pointed out.—Mr. RUSHTON PARKER showed the Intestines from a case that had been treated by ordinary suture eight years ago, after the removal of a portion of gangrenous bowel. The patient had recently died from a disease unconnected with the intestinal tract.—Mr. Paul, Dr. George Hamilton, Dr. Banks, and Mr. Murray made remarks on these cases.

Dr. ARTHUR WALLACE performed Porro's Operation successfully three months ago for Advanced Epithelioma of the Cervix Uteri. The patient was a woman thirty-three years of age, in her tenth pregnancy. The operation was performed at full term by Müller's method. The placenta was attached to the posterior wall. The supra-vaginal cervix was greatly hypertrophied, and was three inches long but not diseased. The mother and child (a girl) did well, and were alive now.

Dr. MANBY showed a Brain taken from a boy fifteen years of age who died after general convulsions which lasted a few hours. As there was a history of a fall a necropsy was ordered by the coroner. A tumour rather larger than a walnut and of a glistening white appearance was found in the situation of the pineal gland. It was almost structureless microscopically.

Dr. BRIGGS then read a paper on nineteen cases of Vaginal Hysterectomy for Uterine Cancer. The first operation was performed in March, 1889, and the last in October, 1894. The growths were of varying extent. In three instances the disease was found in the stump of the uterus above the limit of the supra-vaginal amputation, which was the operation intended. The growths were classified as follows. 1. Adeno-carcinoma of the body at an advanced stage (one case). Now, nine months later, there was recurrence in the whole vaginal roof. 2. Cervical carcinomata, including three cases of the cauliflower form, one case of the villous variety, and thirteen cases infiltrating the cervix, of which two commenced high up in the cervical canal (seventeen cases). 3. Cauliflower growth, clinically indistinguishable from the three mentioned above, but possessing no definite cancerous structure, simply an infiltration of closely packed round cells (one case). This patient was forty-eight years of age, and was now alive and well, four years and two months after operation. The diagnosis was made in all the cases on clinical grounds, except in one of the thirteen infiltrating carcinomata of the cervix, in which a wedge cut out from the posterior lip of the cervix was examined under the microscope. Water-colour drawings of the recent appearances of the growths, the preserved specimens, and microscopic sections were exhibited. All the patients recovered from the operation. Dr. Briggs stated that the test of the operation as a means of radical cure was only complete, by lapse of time, in the first nine cases tabulated. Of these, seven had died 26, 33, 9, 11, 9½, 2½, and 6½ months after operation. One case, which looked favourable, could not be traced, and in one the growth was not distinctly cancerous in structure. He could not present one radical cure of cancer. The measure of relief was the extent of the modification or suppression of the local symptoms, beneficially influencing the general health. Pressure forceps had been used in all the operations, and left on for forty-eight hours amidst a packing of cyanide gauze.—Dr. GRIMSDALE hoped that some day patients would present themselves in the early stages of the disease, and so give the operation the chance of being a radical one. At present everything appeared to encourage women suffering from cancer of the uterus to put off seeking advice. Thus, pain was a late symptom, and bleeding was disregarded and thought to be due to "the change of life." The operation of vaginal hysterectomy had now so small a mortality that it could be recommended even as a palliative measure. At the Liverpool Hospital for Women the operation had been performed thirty-one times with only one death.—Mr. BURTON said that, of his own cases operated on by the method described, the first case was in November, 1888; the patient was brought before the society at the time, and the uterus was shown. She was still living and well. The only other case still living was operated on in July, 1892; there was no return of the disease up to the present. The operation itself was now known not to be a dangerous one. Very few cases coming under observation were suitable; in nineteen out of twenty the disease was already too far advanced.—Mr. Puzey, Dr. Banks, Dr. Alexander, Dr. Imlach, Dr. Davies, and Dr. Boyce took part in the discussion which followed.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF OBSTETRICS.

Exhibition of Specimens.—President's Address.

A MEETING of this section was held on Nov. 23rd, Dr. PUREFOY, President, being in the chair.

Dr. W. J. SMYLY exhibited the following specimens: Eight Ovarian Cysts, including two Dermoids; two specimens of Interstitial Salpingitis; four specimens of Double Pyosalpinx; one Fibro-cystic Tumour of the Uterus; two Fibro-myomata (one suppurating) removed from the same patient by abdominal section; six Uteri, in which the entire organ, including the Cervix, had been removed by abdominal section (Martin's method); one Uterus, removed by abdominal hysterectomy, with intra-peritoneal treatment of

stump; four Myomatous Uteri, removed per vaginam by Doyen's method (*morcellement*); four Cancerous Uteri, removed per vaginam; and one Suppurating Kidney.

Dr. ALFRED SMITH showed the following specimens: 1. A pair of Non-cystic Pyosalpinges, removed from a woman twenty-eight years of age who had been an invalid since the birth of her child four years ago. She made a good recovery. 2. A large Unilocular Ovarian Tumour. In this case a drainage-tube was considered necessary, and when it was removed on the fourth day a loop of intestine was found to be attached to it by a firm adhesion, which had to be ligatured and cut. In doing this the intestine was unfortunately opened and some fæces escaped, but were carefully mopped up. The wound having been closed with a purse-string suture and anointed with sterilised oil after Martin's method, the bowel was returned, and there was a good recovery without reaction. 3. A Dermoid Cyst, the size of a sixth-month pregnant uterus, extensively adherent and containing in its wall numerous calcified plates which on palpation produced a sound like that of breaking egg-shells. Much of its sebaceous contents escaped into the peritoneal cavity, which was well douched with gallons of normal saline solution at 100° F. with a three-foot pressure. The recovery was rapid. 4. A Hydrosalpinx removed from a patient twenty-nine years of age, who recovered. 5. Two large Phosphatic Vesical Calculi removed by section through the vesico-vaginal wall. The patient left the hospital in twelve days.

Dr. ATTHILL exhibited an Encapsulated Tumour removed from vaginal wall.

Dr. MORE MADDEN exhibited the following specimens: 1. A Hydatidiform Mole, removed from a woman who suffered from chronic nephritis and presented all the signs of pregnancy, except that the abdomen was over-distended for the presumed time (four or five months) and no fœtal movements or *ballottement* could be recognised. After dilatation of the cervix the mass was removed and the uterus plugged with iodoform gauze. A few days afterwards some more of the mass was removed in the same manner. The patient was much collapsed for some days, her temperature being 103° F. after the operation and 105·2° on the day of her death. The chronic nephritis probably conduced to the fatal result. 2. A Cystic Tumour removed from the broad ligament of a woman aged twenty-eight years. Laparotomy having been performed and the cyst being non-adherent, it was drained with a Spencer Wells' trocar and cannula and removed. The broad ligament was doubly ligatured and the abdomen washed out with a warm boracic solution. The wound was sutured with four silver wire sutures, including peritoneum, muscle, and superficial parts, and the skin was brought together by silkworm gut sutures. All the sutures were removed on the tenth day, the patient's temperature never exceeded 100°, and her recovery was rapid. 3. An Ovarian Tumour removed from a girl sixteen years of age, who was supposed to be pregnant. Her recovery was rapid, the stitches being removed ten days after the operation.

Dr. F. W. KIDD exhibited a specimen of Amputation in Utero by Amniotic Bands. The fœtus, which was one of about four months, had been expelled before the woman's admission into Coombe Hospital and had been roughly treated, the head being almost separated from the body. Adhesive bands had amputated portions of the fingers on both hands and some of the toes, and a band was amputating one of the legs midway between the knee and the ankle. The fœtus also had double harelip. The specimen was interesting on account of its rarity.

The PRESIDENT delivered a short inaugural address. He reviewed the work done by the members of the section during the previous session, touching on improved methods of practice and on the operations usually undertaken by the gynæcologist and the obstetrician.

ROYAL ALBERT HOSPITAL, DEVONPORT.—The thirty-first annual report of this hospital was presented at a meeting held on Nov. 27th, Admiral Sir Algernon Lyons, K.C.B., presiding. The number of in-patients admitted during the year was 543. The out-patients exceeded 1800, among whom were 100 cases of fractures and dislocations. In the ophthalmic department there were 85 in-patients and 1200 out-patients. The income was £3487, which fell considerably short of the expenditure, and there was a balance of £231 due to the treasurer. The inadequacy of the income was a source of much concern to the committee.

Reviews and Notices of Books.

A Text-book of Pathology, Systematic and Practical. By D. J. HAMILTON, M.B., F.R.C.S., F.R.S.Edin., Professor of Pathology, University of Aberdeen. Vol. II., Parts I. and II., pp. xxii. and 1139, with 398 Figures in Coloured Plates and Woodcuts. London: Macmillan and Co. 1894.

THOSE students of pathology who read the first volume of Professor Hamilton's Text-book of Pathology must have looked forward with interest to the appearance of the second. Now that it has appeared, and there has been time to gain a knowledge of its contents and to form a judgment as to its merits, those who have read it carefully will probably have come to the conclusion that the excellent standard set in the first volume is more than maintained in the second.

We will first give a general idea of the scope, and then indicate very briefly the special features of excellence in this remarkably full and elaborate text-book. The second volume is divided into two parts, each bound by itself. The first portion, consisting of the continuation of Part III., in which the Diseases of Special Tissues and Organs are considered, includes the pathology of the nares, larynx, and trachea, the pleura and lung, the liver, kidney, bladder, organs of generation, the alimentary tract, and the nervous system; then come diseases of the thyroid gland, the supra-renal capsules and the spleen, the mamma, diseases of bones and joints, diseases of the skin, and, lastly, chapters on malformations and diseases of fœtal membranes and placenta. Part IV. deals specially with Diseases due to Vegetable and Animal Parasites. In this part the author considers somewhat fully: First, systematic bacteriology under the headings Conditions of Bacterial Life, the Parasitical Mycetes, their General Characters, and the Chemical Actions performed by them. Then the vital activities of these organisms are dealt with, and fermentation and putrefaction, as the groundwork of bacterial study, are taken up, especially in their relation to the formation of microbial alkaloids or ptomaines, bacterial enzymes or ferments, albumoses or toxalbumens, and similar substances. The process of nitrification and the absorption of free nitrogen from the air and the relation of these to bacterial organisms are also set forth. The question of immunity is treated pretty fully and the organisms found in the various specific infective diseases are carefully studied. The Animal Parasites of Man receive a special chapter to themselves; whilst the chapter on Animal Heat and Fever concludes a work which no student of medicine, however far advanced, will put down without feeling that he has the opportunity of acquiring a thoroughly scientific basis for the formation of accurate diagnoses and the carrying out of successful treatment.

It is evident in every line of the work that it has been a labour of love to the author, but a love so far tempered by discretion that, whatever individual readers may think of the theories advanced, and however widely divergent the conclusions they draw may be from those drawn by Professor Hamilton, the data on which the theories and conclusions are founded must almost invariably be accepted as being the result of careful and accurate observation. Nothing appears to be too small, if it is important, to have escaped the keen observation of the author, with the result that we have here not only a well-balanced but an extremely full account of all the more important pathological processes; and although the details given are sufficiently numerous to illustrate the great general principles of pathology they are never so numerous that they throw into the shade the principles they are intended merely to illustrate. In respect

of balance, this work is a great advance on the text-books that have appeared in recent years, especially in Germany, in which the student has found elaborate monographs of certain special subjects, whilst others, equally interesting and important from the point of view of the student of medicine, have been passed over so lightly that the reader would almost imagine that they were of merely secondary importance. We venture indeed to think that any student who turns to Professor Hamilton's work for the pathology of almost any system will find, clearly and lucidly laid down, the main principles involved in such pathological processes, with a sufficient number of such concrete illustrations to enable him to grasp the salient features of the process. That the author is some imes dogmatic is, perhaps, one of the chief features of the book, as the student is encouraged to accept facts strongly stated, whilst—equally important—the dogmatism is no nearly so manifest as regards matters of theory and conject ture, so that, accepting the facts, the student is encouraged to draw his own conclusions. It is evident, as we have already foreshadowed, that Professor Hamilton has under taken the important, but very arduous and responsible, task of filling up gaps in our descriptions of systematic pathology for subjects which, to the student of medicine, have hitherto been accessible only in the journals and in special monographs. This is specially noticeable in the chapters devoted to the Pathology of the Genito-urinary System, especially of the Female — one of the most important and interesting chapters in the book. The chapter on the Pathology of the Stomach will also be welcomed as containing, in full but concise form, what is at present known of the functional and organic diseases of this organ. The chapter on Cholera, like that on Diphtheria, is full of interest. But the most important, because the most original, in the whole work is the part devoted to the Diseases of the Nervous System. The diagrams in this section are so clear and follow one another in such regular and synthetic order that they convey an amount of information second only to that found in the text. The next most important chapter, not usually treated upon in systematic treatises on pathology, is that relating to Diseases of Bones and Joints. Diseases of the Skin are also fully discussed, whilst Malformations are examined especially from their developmental point of view. The chapter on Animal Heat and Fever is exceedingly interesting, but it is a subject on which there is such difference of opinion that we are not surprised to find that here the author does not offer his statements with such convincing force as he does in many other parts of the work. It would be idle and little complimentary to Professor Hamilton to say that no fault could be found with the book and with the statements contained therein; but only by a careful study over a prolonged period would it be fair to criticise minor weaknesses when we find so much of value.

The illustrations, though very unequal in quality as regards reproduction, are admirable examples of what text-book illustrations should be. The woodcuts are perfect, and many of the coloured illustrations are very fine, but the process blocks are curiously unequal, some of them being exceedingly hard and crude, whilst others are very fair samples of process work. As in the first volume, the bibliography is not only exceedingly full, but is well up to date, and anyone working at a special subject will here find most of the important works referred to in such form that he may easily identify and obtain them. One final observation. The work is intended for perusal not only by the pathological expert, but by every student and practitioner of medicine, who will find in it a guide, not to pathology only, but to the actual practice of his profession. It is certainly the most important work of its kind that has appeared in this country for some years, and we heartily wish, and predict for, it the success it thoroughly deserves.

Lectures on the Darwinian Theory. Delivered by the late A. MILNES MARSHALL, M.A., M.D., Professor of Zoology in Owens College. Edited by C. F. MARSHALL, M.D. With 37 Illustrations. pp. 236. London: David Nutt. 1894.

THIS volume possesses a melancholy interest from its being the latest work of its gifted author, who, it will be remembered, met with his death by an accident on Snowdon. The discourses were delivered by the late Professor Marshall in connexion with the extension Lectures of the Victoria University during last year. It is stated in the preface that some of them were left only in the form of notes, but they have been edited by Dr. C. F. Marshall in a very satisfactory manner and are full of interest. The author commences with a History of the Theory of Evolution, in which, after a reference to Aristotle, the additions made to science by Linnæus, Buffon, Cuvier, Goethe, Lamarck, Geoffroy St. Hilaire, Hutton, Lyell, and Herbert Spencer are successively but briefly mentioned. The views of Darwin and Wallace then receive consideration. Naturally the author follows the lines marked out by Darwin himself, showing that all the varieties of pigeons are descended from the blue-rock pigeon (Columba livia). He illustrates the struggle for existence that must ensue from the rapid increase of numbers by Linnæus' statement that an annual plant producing two seeds only would in twenty-one years produce over a million plants; whilst an oyster, which at a very low estimate produces only 16 millions of eggs in one year, would in the fifth generation, if the increase were unchecked, produce a mass more than eight times the bulk of the world. Fortunately, the numbers of each species are, on the whole, stationary, large numbers being consumed as food; so that Mr. Poulton assures us that out of 533 larvæ collected in 1888 of the large garden white butterfly, 422 full-fed caterpillars died from the presence of ichneumon grubs. The tendency to variation is illustrated by the circumstance of shepherds recognising each sheep in a flock of a hundred which they had never seen till a fortnight previously, of ants which know those of their own nest, and of butterflies which show great variation in every part of their bodies. The survival of the fittest is shown by reference to the apterygious insects of Madeira and Kerguelen Island. The third section discusses the argument in favour of natural selection derived from palæontology. The cases of the horse and the archæopteryx are of course the *pièces de résistance*, commencing with the Hipparion, with three well-formed digits, which is found in the pliocene; Miohippus and Mesohippus, with a more or less rudimentary metacarpal bone of a fourth digit in the fore-foot, found in the miocene; Orohippus, with four well-developed digits in the fore-foot and three in the hind-foot in the eocene, and Eohippus, with five digits at the base of the eocene. Next, the argument from embryology is considered, in which the similarity of the early stages of development of all animals is dwelt upon with the tendency of the embryo to pass through ancestral stages suppressing useless characters. An interesting lecture is devoted to the colour of animals and plants. These are grouped under the heads of "apatetic," the object gained by which is the hindrance of recognition by other animals "sematic," the purpose of which is to facilitate recognition by animals of the same or of other kinds, or in some instances to warn them; and, lastly, "epigamic," which include those cases in which a difference exists between males and females. The chief objections to the Darwinian theory constitute the subject of another section, and the author fairly acknowledges the difficulties that are presented by the first stages of organs which ultimately fulfil important purposes, but are very unserviceable when they first appear, as in the case of the bat's wing. The seventh lecture is on the Origin of the Vertebrata, and in it

Dr. Marshall expresses himself as opposed to the doctrine that the vertebrate stem arose from arthropods. The last lecture is on the Life and Work of Darwin. Throughout the lectures the language is everywhere clear and intelligible, and the facts and reasonings are put in a most attractive form. We must not omit a word of praise for the illustrations, which are both appropriate and beautifully executed and printed.

Chorea and Choreiform Affections. By WILLIAM OSLER, M.D. London: H. K. Lewis. 1894.

THE excellence of Dr. Osler's literary work and the high order of his clinical ability have been so widely recognised both in this country and in America that any fresh work from his pen is certain to excite not only attention but interest. The volume before us deals with the fascinating but elusive disease chorea, and if in parts of it there are occasional evidences of haste and of some want of what we may call assimilation, the work as a whole will not detract from the already great reputation of the author. The chief part of the book is devoted to the consideration of ordinary chorea under various aspects. The early chapters deal with its etiology and symptoms; the arcdiac condition in chorea has a special chapter to itself, and another is given to the morbid anatomy and treatment of the disease. There are two more chapters, one dealing with the choreiform affections known as "tics" and the other giving an account of the chronic progressive disease known as "Huntington's chorea."

We doubt whether the time has yet come for the production of a work on chorea which would mark an epoch in the literature of the disease. Its pathology is still so obscure, its morbid anatomy so uncertain, and its relationships so indeterminate, that such a work is, we believe, impossible. But Dr. Osler has arrived at certain conclusions from his own investigations, and with these as a background has contrived to offer the reader a wide and comprehensive view of the whole field of the disease.

There are one or two points which should, we think, be referred to. It is, for example, a little unfortunate that he should have used the term "retinal hyperæmia" to describe a condition of the fundus in chorea. The term is so vague that its significance amounts to almost nothing. Again, we are told that multiple neuritis sometimes follows chorea. Has it ever, we would ask, been found in a case of chorea which was not treated with arsenic? The author considers this drug as possibly the cause of certain skin eruptions in the disease. We should imagine it would also have to be reckoned with in cases of neuritis following chorea. In the incidental mention of canine chorea Wood's description in 1887 is given of the cell changes, but no mention is made of the fuller account given ten years earlier by Gowers and Sankey. These points, however, are but evidence of the occasional haste to which we have referred. The work as a whole is well done, and the accounts of the various conditions dealt with are very full, and are, as it were, dominated by the wide clinical experience and sound judgment of the author.

Atlas of the Diseases of the Skin. By H. RADCLIFFE CROCKER, M.D., F.R.C.P. Parts III. to VI. Edinburgh and London: Young J. Pentland. 1894.

IT is several months since we welcomed the appearance of the first fasciculi of this Atlas, and expressed a favourable opinion upon its character and execution. Since then, with praiseworthy punctuality, a fasciculus containing six plates has been issued every alternate month, and many conditions, common and rare, have been depicted with a fidelity which compels admiration. The text to the plates is, in the main, limited to an account of the case which is portrayed; but Dr. Crocker has also wisely introduced more general remarks upon the nature and the treatment of many of the diseases concerned. In the third fasciculus there is a striking example of a bullous eruption due to iodide of potassium (Plate 36), the eruption, which commenced within twenty-four hours of taking the drug, appearing in great profusion on the face. It is of interest to note that the patient was the subject of chronic albuminuria, for Mr. Hutchinson long ago pointed out the liability of the subjects of renal disease to the toxic effects of the drug. The explanation obviously lies in its defective elimination by the renal channel. Another drug effect is illustrated in the same fasciculus, in Plate 37, which exhibits arsenical pigmentation and keratosis. The same part includes also representations of lichen planus (Plate 32), verruca (Plate 47), lupus sebaceus (Plate 64), and acne varioliformis (Plate 86). The fourth fasciculus contains a remarkably artistic drawing of herpes zoster (Plate 15), which contrasts with the somewhat high-coloured representation of pemphigus (Plate 17) from a case of extreme severity. There is an excellent illustration of lichen scrofulosus (Plate 57), especially that given in Fig. 1. The characters of the two varieties of leprosy, the tuberculous (Plate 69) and non-tuberculous (Plate 70), are also represented, the former being to our thinking a far more successful effort than the latter. A striking example of a confluent rash in an infant of seven months due to bromide of potassium (Plate 35) is also represented. In the fifth fasciculus we find another portrait of pemphigus (Plate 18), and this, again, proves that the condition is one of much difficulty to depict. There is a well-marked example of pityriasis rosea (Plate 30), and a remarkable case of ichthyosis hystrix (Plate 45) in a girl fifteen years of age, the lesion involving part of the neck, the axilla, and elbows, and the right half of the abdomen. There are some figures of Addison's tubercle (scleroderma circumscripta) in the next plate (Plate 48), of which that showing the condition on the leg is the best. One plate (Plate 55) illustrates forms of moles; and another gives three drawings of tinea tonsurans (Plate 92). The sixth fasciculus contains a representation of a rather remarkable instance of urticaria pigmentosa (Plate 6) which involved the whole body, one of vesicular and pustular eczema (Plate 8), and one of hydroa herpetiformis (Plate 20), of which there is a full and interesting description. The plate representing psoriasis (Plate 23) seems to lack the striking features of this familiar affection—viz., its scaliness. It is followed by a plate depicting the rare condition of scleroderma pigmentosum (Plate 56) and two illustrations of cutaneous sarcoma (Plate 87), one secondary to mediastinal tumour, and the other an example of melanotic sarcoma. It will be seen from this brief enumeration that each issue of the Atlas contains a great variety of subjects, and that it promises to be the most extensive as well as the best executed work of its kind.

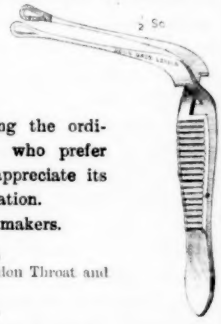
Diseases of the Upper Respiratory Tract, the Nose, and Pharynx. By P. WATSON WILLIAMS, M.D. Lond., Physician to Out-patients and in Charge of Throat Department at the Bristol Royal Infirmary. Bristol: John Wright and Co. 1894.

DR. WATSON WILLIAMS may be congratulated on having written a book which admirably serves the purpose for which the preface tells us he designed it. It is clearly written, concise, complete, and well illustrated, and will be of the utmost use to the senior student and as a reference book for the busy practitioner. Long discussions on disputed points are avoided, and special care has been taken with regard to the description of the symptoms of each disease and the differential diagnosis from conditions with which it might be confounded. Dr. Williams very lucidly indicates the lines of treatment and judiciously

gives in some detail the special methods he has found most efficacious without burdening his pages with a tedious list of the various remedies which have been recommended at one time or another. The book will also be useful for physicians whose experience lies chiefly in other fields, as the laryngeal complications in typhoid fever and in various nervous diseases are admirably dealt with. We are surprised, however, that no mention is made of œdema, ulceration, or paralytic conditions affecting the soft palate. An account of the bacteriology of diphtheria and of the antitoxin treatment shows that the book has been brought up to date. Dr. Williams warmly advocates the separation of diphtheria and membranous croup, the first being associated with the Klebs-Löffler bacillus, the latter with streptococci only; thus returning to the views almost universally held until a few years ago, and in favour of which bacteriological evidence, at any rate, is very strong. The pages are fully illustrated with engravings depicting the conditions seen, and also the methods and instruments recommended in the text. The coloured plates add to the attractiveness of the book, but are calculated to raise false expectations and so to discourage the student. It would be more helpful if the appearances were represented on the scale in which they appear in the ordinary laryngeal mirror and with more subdued colouring. This, however, is a minor detail, and on the whole we can strongly recommend the book as a portable, well-written, practical guide to diseases of the throat and nose.

New Inventions.

SELF-RETAINING AURAL POLYPUS FORCEPS.



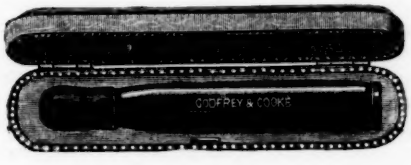
THIS instrument is simply the application of a strong cross-acting spring as a substitute for the inconvenient slide which is used for clamping the ordinary polypus forceps. Those who prefer the forceps to the snare will appreciate its stability and facility of manipulation.

Messrs. Down Brothers are the makers.

WYATT WINGRAVE,
Assistant Surgeon to the Central London Throat and Ear Hospital.

NEW MENTHOL INHALER.

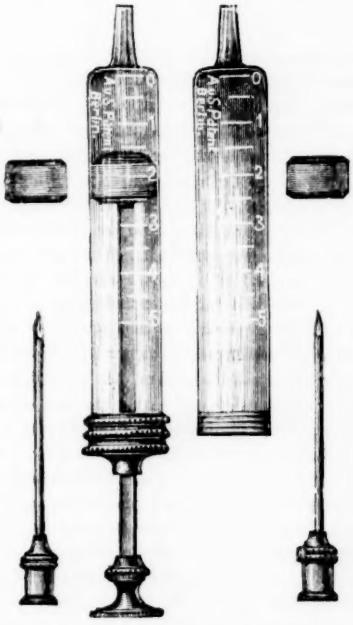
THIS new menthol inhaler, which is depicted below, has been submitted to our notice. By its use the vapour of menthol can be effectually introduced into the respiratory tract. It is a simple and ingenious invention, and will doubtless prove useful to those who need such an appli-



ance. These inhalers are sold in leather cases at 2*s.* each, and are specially designed for the waistcoat pocket, being only three inches in length. They may be obtained from Messrs. Godfrey and Cooke, 30, Conduit-street, Regent street, W.

HYPODERMIC SYRINGE FOR ANTITOXIN INJECTION.

THE accompanying illustration shows a hypodermic syringe suitable for the injection of antitoxin. The syringes are made in four sizes, delivering from one to ten cubic centimetres of the fluid, the latter size being more convenient for the gradual injection of the whole dose. All the parts



unscrew, and the plunger is fitted with an asbestos washer, so that it may be easily sterilised. A specimen case which has been forwarded to us by Messrs. Baird and Tatlock of 14, Cross-street, Hatton-garden, E.C., contains needles, glass syringe, and asbestos washers in duplicate, the whole being enclosed in a neat plush-lined box measuring 2½ in. wide, 5 in. long, and 1 in. deep.

RICHARD MIDDLEMORE POST-GRADUATE LECTURES.—A lecture on Ocular Affections caused by Blows will be delivered at the Birmingham and Midland Counties Eye Hospital, Edmund-street, Birmingham, on Thursday, Dec. 13th, at 4.30 P.M., by Mr. Henry Ealcs, surgeon to the hospital, consulting ophthalmic surgeon to Balsall Heath Dispensary, &c. Illustrative cases will be shown after the lecture, and all qualified members of the profession are invited to attend.

LITERARY INTELLIGENCE.—An interesting contribution to the history of epidemics is about to be published by the Epidemiological Society of London. It consists of an account of the Great Plague of London in 1665, written by a London apothecary, William Boghurst, who was on the spot through the whole epidemic, and gained a large experience of the disease. This document has long remained in MS. in the British Museum, and a few quotations have been made from it by various writers, but it has never been printed. Boghurst gives an account of the origin and spread of the disease very different from that given by Nathanael Hodges, whose work is the only other medical authority on the subject, and his account of the symptoms and complications of the disease is also much fuller than that of Hodges. This description offers many points of resemblance to the accounts of the latest epidemic of the true plague, that of Hong-Kong in the present year. The treatise will be published in the transactions of the society, and also separately edited with an introduction by the late President, Dr. Payne.

THE LANCET.

LONDON: SATURDAY, DECEMBER 8, 1894.

As was anticipated both by the President and ourselves, the work of the General Medical Council has been heavy and prolonged. The meeting has extended over nine days—a longer time than the Council has been accustomed to sit of late years, the average number of days of session for the whole period of the Council's existence having been seven days. It is clear that if the number of penal cases does not decrease there is little prospect of the duration of future sessions being curtailed. It is, of course, highly important that the Council should exercise its disciplinary and judicial functions for the maintenance of professional conduct and the repression of all practices that are contrary to the public interest—a duty that has devolved upon it not only by Act of Parliament, but by public opinion—with proper deliberation and care. No part of the duty of the members of the Council is so painful as that of having to sit in judgment on the conduct of their fellow practitioners, and none is so responsible. They have even then one supreme duty to the accused practitioner, and that is to see that he has fair play and the fullest chance of placing his conduct in the light in which he wishes to place it. The Council a year ago appointed a committee to prepare penal cases, and to save the time of the Council by excluding those that did not seem of sufficient gravity or clearness to justify further investigation. By the action of the committee on this occasion the number of cases for the judgment of the Council has been reduced by two-thirds. Nine or ten cases, however, remained, and in some of these new questions of conduct have been involved which cannot be too seriously studied by the profession for its guidance and the guidance of public opinion. The case of Mr. ROBERT MASTERS THEOBALD was one of these. He was charged before the Council with publishing and circulating a book entitled "Electro-Homœopathic Medicine," in which are contained a description and recommendation of the so-called electro-homœopathic cures and medicines of one Count MATTEI, and in which it was suggested to persons suffering from disease by him (Mr. THEOBALD), as a registered medical practitioner, to adopt such so-called cures and medicines as therein stated to be practised by him. It is well known that the Medical Acts amply protect homœopaths in the enjoyment of their peculiar principles, and any other regular practitioner who honestly holds a theory of medicine, however weak or absurd. But this was not such a case. Count MATTEI is not a medical man, and his preparations are not a medical theory. Moreover, the Council was fortified with an analysis of the remedies, which have long been discredited in this country as a cruel fraud on the suffering public. This analysis showed the medicines, called by many fine and fancy names, to be undistinguishable from distilled water with possibly a little débris from the corks. For a registered medical man, homœopathic or otherwise, to give the sanction of his name and to recommend such so-called medicines was not to adopt a theory, but to abet a fraud—at least, the Council seems to have taken this view. The evidence of Mr. THEOBALD'S character, conveyed in the admirable speech of Mr. ACLAND in his behalf, went to show that he had for many years impressed his friends and patients favourably; but the General Medical Council has to judge men by professional standards, and it would have been strange indeed if it had not found that such a covering of fraudulent preparations by a registered practitioner, extending over three editions of his book, was an offence against all established principles of professional conduct and highly calculated to mislead the public. The case was still further complicated by the Royal College of Surgeons of England having withdrawn its diploma—the only one possessed by Mr. THEOBALD. But this would not have decided the Council to remove his name from the Medical Register without satisfying itself as to the conduct of Mr. THEOBALD in respect of the charge brought against him. Another case which occupied much of the time of the Council was that of Dr. HERBERT TIBBITS, who was, speaking generally, charged upon two points—first, with being associated with CORNELIUS BENNETT HARNESS, a person of no medical qualifications, in carrying on an establishment for administering to patients medical treatment by electricity and electric appliances; and, secondly, with having, in connexion with the London Massage and Galvanic Hospital and West-end School of Massage and Electricity in Weymouth-street, W., made statements and representations to the public and individuals to the effect that such an establishment was a public charity and in need of funds, and by other means having endeavoured to obtain money from the public. The general facts are so well known to our readers, and the special facts pertinent to this occasion are so fully reported in our present issue, that we need not say more here than that the Council would have failed in its duty if it had not used its full powers of discipline in this case. It is in the last degree painful to see a medical man in Dr. TIBBITS' position. But if medical men are to be saved from such positions it is chiefly by firmness on the part of the Council in dealing with such instances when they arise.

Two practitioners, charged respectively with covering unqualified persons and found to have committed the offence, were fortunate enough to escape any immediate punishment at the hands of the Council. By a recent Standing Order guiding its procedure in penal cases the Council may stop short at the simple finding of the offence without defining it as infamous conduct or proceeding to the erasure of the name of the practitioner. The Council felt itself justified in acting so in the case of these gentlemen—Dr. BRECKNELL and Mr. T. RICHARDS. The Council reserves to itself the right of further considering both these cases. In the meantime their names remain on the Register, and will not be likely to be removed unless there be a continuance of the conduct offensive to the Council. This modification of procedure, if not too leniently used, will be beneficial. There are cases in which the offence of covering is mitigated by circumstances, and in which, nevertheless,

it would be an evil not to find the persons guilty of it. The new procedure meets such cases without inflicting the severe penalty of the law. In the case of Mr. COSTELLOE, charged with covering T. W. ALLEN, carrying on practice at Croydon, the Council proceeded on Wednesday to order the erasure of Mr. COSTELLOE'S name. This is the second practitioner who has come to this punishment by association with Mr. ALLEN, who has had absolutely no medical training; and yet who has been the only continuous element in the practice concerned, buying it and selling it, and in the interregnum carrying on the practice. It is absurd for a practitioner of experience after buying a practice from such a person to say that he did not know he was unqualified. He ought to have known. The case was a glaring one, in which successive principals figured rather as the assistant of the unqualified person than the principal, and the disastrous results may well serve as a caution to all practitioners contemplating the purchase of a practice depending on the goodwill of such persons. Perhaps the most important case on Wednesday was that of Mr. CHARLES OAKES, M.B., C.M. Aberdeen, L.S.A. Dr. OAKES has felt impelled by love of pure truth, as he puts it, to testify to the skill of a rupture curer—one J. S. SHERMAN. He protested his love for his profession and his entire disinterestedness in writing high laudations of SHERMAN in pamphlets and elsewhere. In answer to Mr. BRYANT he said he had not heard of any untoward results. But such one-sided testimony to an advertiser and unqualified hernia curer by a registered practitioner was unintelligible to the General Medical Council, and they ordered the erasure of Dr. OAKES' name and titles. It is not permissible that medical men should give to newspaper advertisers of the quack fraternity the advantage of their sanction.

ON Thursday, Nov. 29th, the reports of the visitor, Mr. BRUDENELL CARTER, and the inspector, Dr. DUFFEY, on the final examinations of the Conjoint Examining Board in England were under discussion at the General Medical Council and were adopted. The reports afforded an interesting picture of praise and blame, while making some excellent suggestions for the improvement of the examinations. "Speaking generally," they say, "the examinations of the Conjoint Board] all round were well planned and were carried out with efficiency and care. The large number of candidates at each examination is in itself a source of difficulties, but with the resources of the Colleges in respect of their choice of examiners, their admirably organised staff, and their commodious examination halls these difficulties are minimised." No special comment is made on the written part of the examinations, which is evidently considered good and "sufficient," the technical term used by the General Medical Council to imply adequate rigour, and the only fault found with the practical and oral examinations is the shortness of time allotted to each candidate. The real fault-finding is with the clinical examinations in medicine and surgery and with the system of marking. We have referred to these faults in the examinations again and again, and visitor after visitor and inspector after inspector have reiterated them, but all to no purpose. They are unique, and have an ancient descent from the time when the Colleges conducted their examinations separately, and nothing can persuade the Committee of Management of the Examining Board of the Colleges that they ought to be altered. It matters not that everyone who is conversant with other examining boards and with the systems adopted by the Universities condemns them; this only seems to prove to the authorities of the Colleges that their plans are the best and need no reform. The clinical examination in medicine is thus referred to by the visitor and inspector: "The time devoted to it is much too short. Ten minutes to each of two patients is, we think, hardly a sufficient time in which to investigate many medical cases, and we should not be surprised to hear that some of the examiners share our opinion. Very few candidates, without a great deal of help, could in ten minutes make much out of a case of chronic peritonitis in a boy, or one of tuberculous pleuritis, or of insular sclerosis of the cord, all of which, as well as many examples of cardiac disease, were among the cases given. In such a limited period the physical examination of the patient must necessarily often be hurried and incomplete, and the answers given must be more or less conjectural." Obviously this limitation of time is most unfair to the candidate, and no one would attempt to make a diagnosis under such conditions in the routine of daily practice. "We are also strongly of opinion," they continue, "that in every clinical examination, either in medicine or in surgery, candidates should be required to furnish a written report of at least one case." These two points—plenty of time for full investigation and a written report on the case or cases—are cardinal features in the examinations at the Universities, and yet Sir DYCE DUCKWORTH, in the face of these opinions, informs the General Medical Council that the clinical examinations of the Conjoint Board are not hurried. We should like to know the proper adjective. The time given to the clinical examination in surgery is only fifteen minutes—that is, five minutes less than in medicine. We suppose that this, too, is not to be called a "hurried" examination. The range of marking in medicine, with its maximum of ten and minimum of three in each of the three divisions of the examination, fifteen out of thirty being a possible pass mark, has been condemned over and over again; but its inventors still evidently believe that no alteration is necessary. It is the old plan of the College of Surgeons put into numbers—"good," "bad," and "moderate" over again. Three and below correspond to bad, four and five to moderate, and all above these to good; but any mark above six or seven in either part is practically unnecessary, when fifteen is sufficient to pass. The marking in surgery is still more restricted, for the maximum is five and the minimum one. Nobody but the original devisers of such a scheme of marking would persist in continuing it, and its inelasticity sufficiently explains the haphazard results of which the teachers so often complain. The inspector and visitor have suggested an improved table, in which hundreds take the place of tens and the clinical work is given its due place and significance. We can only hope that more attention will be given to this well-meant advice than has

hitherto been paid to similar suggestions by previous inspectors.

IN his address before the Abernethian Society Sir JAMES PAGET drew attention to the great gaps which exist in our knowledge of the laws of heredity. Some of the broad facts of heredity are familiar enough, and are, indeed, too palpable to be overlooked even by careless observers. That gout, cancer, rheumatism, tuberculosis, and insanity, to take a few examples out of many, are often inherited is a well-recognised and certain fact, but, says Sir JAMES PAGET, "it has never been studied carefully what may be the result when one parent has one transmissible disease and another has another; what comes if one parent is a member of a cancerous family and another a member of a tuberculous family. Do these two diseases in any respect disturb one another? Are they mutually exclusive, or do they mingle together? We know that acute tuberculosis and acute cancer never make rapid progress together; they seem in so far as that to be antagonistic. But what comes of it when they are mingled together by inheritance? Of that, I think, we certainly know nothing." This is only a specimen of numerous questions which might be put in connexion with the subject of heredity, but are for the present without any certain answer. Is heredity more usually through the male or the female? If a son or daughter strongly resembles the male or female parent, will he or she be likely to develop the diseases occurring in the corresponding stock? Why does disease sometimes "skip a generation" only to reappear with increased virulence? Why does the epilepsy of the parent become insanity in the child, or *vice versâ*? How comes it that the female transmits the tendency to hæmophilia, but is herself exempt, while the male who suffers does not usually propagate the disease? We might multiply these queries a hundredfold, but they are sufficient to show how much darkness still envelopes so patent and all-important a fact as the inheritance of disease.

Some of the laws of heredity are approximately known, although often their *raison d'être* is inexplicable—as, for example, the law that disease often skips a whole generation and reappears in the generation that follows. This fact has long been observed and is known as "the law of atavism." It seems to involve the assumption that an individual apparently quite healthy may contain in his organism the seeds of disease—e.g., tuberculosis or cancer—and transmit the tendency to such diseases to his offspring although he has never presented any symptom of them himself. This may be so, but if such a theory be correct it intensifies our conception of the mystery of pathological processes. If it could be shown in such cases that the "latent" seeds of disease (we are compelled to use figurative language in this connexion for want of better) remain latent until certain favouring conditions combine to bring them to maturity, the mystery would be materially lessened, but in many cases we have no evidence that such is really the true explanation. It may, however, be regarded as often a probable hypothesis.

The commingling of different and possibly conflicting pathological strains presents, as Sir JAMES PAGET points out, a curious and almost wholly neglected field of inquiry. The whole subject of the influence upon each other of different morbid processes is a very obscure one, and many theories on the subject once confidently advocated have had to yield to the hard logic of facts. It was once thought that valvular disease of the heart was almost a safeguard against pulmonary tuberculosis. It is now known that the conjunction of the two diseases, though uncommon, is not excessively rare. So careful an observer and so acute a reasoner as WALSHE lent the weight of his authority to the old idea that habitual exposure to the poison of malaria was an efficient protection against phthisis. This notion is almost certainly erroneous. It was long regarded as doubtful whether two of the specific fevers could coexist. Most observers have seen cases which have inclined them to an affirmative opinion, but the sources of fallacy are many, and at all events such a conjunction is extremely rare. As to the influence upon the offspring of two conflicting pathological strains, we must be content to confess, as Sir JAMES PAGET affirms, that "we certainly know nothing." But the subject is not inscrutable, and only needs careful and minute observation in order that some light may be cast upon it. The relations of hereditary cancer and tuberculosis, or gout and syphilis, might be worked out if sufficient attention were drawn to the matter.

A great deal of work still remains to be done in connexion with the heredity of phthisis. It is generally asserted that from 30 to 40 per cent. of the cases arising in practice occur in infected families, but it is striking how various are the figures given by different observers. Owing to the great frequency of the disease and the probability of infection, it is evident that many cases of apparent inheritance might be otherwise explained. It would be a great gain to practical medicine if we had decisive evidence as to the influence of heredity upon phthisis on the one hand and the frequency of infection on the other. We are still without any quite satisfactory theory to harmonise the apparently certain facts that pulmonary tuberculosis is due to a specific bacillus and that it is frequently transmitted by inheritance. Some French observers published a few years ago evidence tending to show that the actual bacillus of tubercle was conveyed to the offspring through the ovum, but this view has not been generally accepted. Many believe it to be more probable that the parent transmits simply a constitutional delicacy or some peculiarity of the pulmonary tissue which renders the individual more liable to become the subject of bacillary infection; but it cannot be said that we have any certain information on the subject.

Problems of heredity should appeal more especially to the cultured and philosophic of the large body of general practitioners. Hospital work and consulting practice certainly afford an imperfect field for the elucidation of these interesting and important problems. The hospital or consulting physician seldom sees the beginnings of disease, and he has very rarely the opportunity of observing the disease record of an entire family. The general practitioner has such opportunities, and it would be much to the advantage of our art if those opportunities were thoroughly utilised.

SUPERANNUATION GRANT.—Dr. Septimus Gibbon, lately the medical officer of health of the Holborn district, has been granted a superannuation allowance of £50 per annum.

Annotations.

"Ne quid nimis."

THE LOCAL GOVERNMENT BOARD AND THE EARLY DIAGNOSIS OF DIPHTHERIA.

WE have been informed that arrangements have been made in the Medical Department of the Local Government Board which have for their object to assist medical officers of health in forming a correct diagnosis as to the character of certain forms of "sore-throat" which are often associated with the beginnings of diphtheria prevalences. The plan to be adopted is practically that which was followed during the past two autumns with reference to the differentiation of cholera and diarrhœa. As was the case in regard to cholera, so it is understood that in the case of diphtheria the bacteriological investigations, which will be made for the Local Government Board by Dr. Klein, F.R.S., are intended to secure the adoption, at as early a date as practicable, of the necessary measures of prevention; and hence when once it has been ascertained that the disease in question is diphtheria no further material from other cases forming part of the same prevalence will be submitted to examination. The following are the conditions under which the material in question is to be transmitted: It is to be taken by scraping with a clean instrument from the surface of the tonsils or other suspicious-looking surface of the fauces. If membrane be present a small portion of it should also be included. The material should be at once placed in a small *glass-stoppered* bottle, previously washed out with clean water. No spirit or other fluid should be added. The bottle, which should then be properly secured and so packed in cotton-wool or otherwise as to travel with safety by post, should be posted without delay to the Medical Officer of the Local Government Board, Whitehall, London, S.W.; and it should be accompanied by a history of the case, or of the outbreak of which it forms a part, signed by the medical officer of health for the district concerned.

DEATHS UNDER CHLOROFORM.

A DEATH recently took place during an operation performed under chloroform at St. Bartholomew's Hospital. The patient, a man aged forty, suffering from cancer affecting the pharynx and structures of the air and food passages, was admitted to have tracheotomy performed, an operation the nature of which was explained to him, and which was rendered imperative owing to the extensive character of the invasion of the neoplasm. The man was given chloroform according to the method in vogue at this hospital, and when under its influence the operation was commenced. While the tracheotomy was in progress the man's breathing stopped. Death is, however, stated to have been due to heart failure caused by the combined shock of the operation and of the chloroform. The necropsy revealed extensive carcinomatous infiltration. The operation as such, we presume, is not calculated to produce severe shock, but doubtless the condition of the man and the probable narrowing of his respiratory outlet rendered him less able to bear shock or withstand the depression due to the anæsthetic. We are indebted to the chloroformist in the following case for a lucid account of the fatality. The patient, a muscular but pale man fifty-five years of age, of abstemious habits, was admitted into the Wallingford Cottage Hospital on Nov. 9th for treatment of extensive disease of the carpus on the right side. On the 10th he was put under the influence of chloroform; the anæsthetic was given from a wire mask covered with flannel. He was lying on his back and was rather nervous. A careful preliminary examination of the heart and lungs was made, and they were found to be in a satisfactory condition. A drachm of chloroform was poured upon the wire inhaler and given slowly. From time to time half a drachm more was added. The man appeared to take the anæsthetic well. The chloroformist noted the respiration, the pupils, and the pulse, and observed no departure from the normal. When under the anæsthetic the operation was commenced, an incision being made, and immediately the pupils dilated and the respiration ceased. Instantly the chloroform was stopped, the head was lowered, and artificial respiration was commenced by Silvester's method. Nitrite of amyl, hot flannels to the precordium, hypodermic injections of ether, and galvanism were resorted to without avail. The artificial respiration was kept up for twenty minutes as the heart's action was observed after complete cessation of breathing. The same chloroform had been taken without any bad symptoms by another patient just before this patient took it. The truthful narration given cannot but prove sadly interesting. That school of thought which maintains that shock is peculiarly prone to make itself felt in cases in which the narcotism is not rendered profound before a skin incision is made will find in the mode of death described above a likeness to cases recorded as instances of cardiac inhibition during imperfect anæsthesia. Upon the other hand, it would appear that the respiratory centre was paralysed before the cardiac centre—at least, this was the view of the chloroformist. Such paralysis is, as a rule, the result of an overdose of the anæsthetic, and according to the valuable statistics of the Hyderabad Chloroform Commission in most cases was overcome in the Hyderabad experiments by prompt resort to artificial respiration. In the present instance *primâ facie* no overdose was given and the promptest action was taken to restore breathing. We have, however, in speaking of an "overdose," to carefully discriminate between too large a dose being given at one time and the equally perilous and far more insidious overdosage which occurs if through impediment of the breathing by any means interference takes place with expiration. Such an accumulation of chloroform in the blood as happens under such circumstances probably permanently injures the protoplasm of the medulla before any very marked phenomena, save slight and easily overlooked alteration in the breathing, occur. We must be understood to in no way state any of these solutions of the difficult problem—Why does a patient die under chloroform?—as applying to this particular case; it is, we believe, useful to apply *pro* and *con.* reasonings in all instances of chloroform deaths when the phenomena are sufficiently clearly stated, as in the particular case upon which we are commenting.

FEEBLE-MINDED BOYS.

THERE are few more striking characteristics of the present day than the humane efforts which are made on all sides to bring help to those who are unable to help themselves, "the strong bearing the infirmities of the weak," and so tending to counteract the pitiless tendency in nature for the survival of the fittest only. And although from the selfish point of view of utility the wisdom of this may be doubted by some, there is no need nowadays to argue seriously of our duty to help, and even to make some sacrifice for, those who come into the world imperfectly equipped for the race which requires all the energies of a normally constituted individual. From time to time we have in these columns drawn attention to movements which aim at rescuing from distress or preserving from slipping into the criminal classes those who from disease or from congenital mental deficiency are in some danger of such a fate. Only lately we directed attention to the scheme for the colonisation of epileptics

which is now in operation at Chalfont,[1] and now we notice yet another movement is on foot to look after the interests of feeble-minded boys. With the coöperation of the Metropolitan Association for Befriending Young Servants provision has already for some time been made for the training and education of girls of rather feeble intellect whose mental condition was not such as to require restraint. It was found previously that if sent to earn their own living when young, without careful training, they quickly drifted to the streets or the lying-in wards of the workhouse. It is now proposed to look after the interests of feeble-minded boys in a similar way. A strong committee, headed by the Earl of Meath, is endeavouring to raise £1000 for the formation of such a home. It is not proposed to form a new society, as the Society for Waifs and Strays has undertaken to administer the work if funds are forthcoming. Subscriptions should be sent to Mr. E. de M. Rudolf, Waifs and Strays Society, Church House, Westminster.

DIPHTHERIA IN LONDON.

THE death-roll from diphtheria in London in the week ended Nov. 24th gave some slight hope that the disease in its fatal form might be relaxing its hold on the metropolis to some extent; but any such hope has been destroyed by the registered number of the last week, when the 48 deaths of the preceding week (which had been only 8 in excess of the corrected average) were succeeded by 54, this number exceeding the average by as many as 19. Thus for the past four weeks the record of deaths has been a constantly increasing one—namely, 42, 44, 48, and 54. Nevertheless, the number of patients remaining under treatment in the institutions of the Metropolitan Asylums Board has been one of sequential decline in the same period—namely, 548, 544, 526, and last week 517. As illustrating the area of prevalence we may state that the Registrar-General thus distributes the deaths which he designates to the locality of residence in the last two weeks: Battersea, Bermondsey, Shoreditch, Newington, Whitechapel, and Plumstead, 3 deaths each; Paddington, 5; Lambeth, 7; Hackney, 8; and Camberwell, 15 deaths, including 3 of children from one house. The admitted cases last week showed a falling off, being 78, against 97, 83, and 100 in the three weeks preceding. In Greater London, also, the deaths have increased in the last two weeks, having been 15 and 22 respectively, 23 of the total 37 being credited to West Ham. Thus, diphtheria is prevalent also in the outer ring, Edmonton, Kingston, and other districts being implicated.

"LES MORTICOLES."

THE *soi-disant* medical or psychological (as the authors generally prefer to call it) novel has a decided vogue just now: the recent and remote effects of syphilis are discussed in present-day fiction with charming frankness, and the medical man has taken the place of the priest as a breaker-up of homes happy till his fell shadow darkens their door. Despite this the profession of medicine is still held in honour and its members are still trusted. It has been reserved for one of that nation which has given to science a Charcot and a Trousseau to hold up an honourable calling to infamy. The author of "Les Morticoles" is, we should say, a wouldbe member of the craft he disparages, for he exhibits a knowledge of its more salient features quite equal to that of a fourth year's student. He knows all about antiseptics and microbes, chloroform, post-mortem examinations, and ovariotomies—or, to be more correct, oöphorectomies—while blood, pus, and ascitic fluid meander through his pages. The book is cast in the form of a narrative told by a sailor, who on arriving at Morticolia enters the service of one medical man after another. With two exceptions they are uniformly vile, brutal, and immoral; one of them, whom his colleagues euphemistically term the "Fléau des Gosses," is a noted gynæcologist; he gives a yearly dinner, the "diner des sans-ovaires," the invitation cards for which are tied up with rose-coloured ribbon and bear the device of an egg, under which is printed "Il est vide." This one extract will give an idea of the delicacy and good taste which characterise the book. To compare small things with great, it reminds the reader of the fourth part of Gulliver's Travels, in respect of which Thackeray says: "It is Yahoo language, tearing down all shreds of modesty, filthy in word, filthy in thought, furious, raging, obscene." That anyone who inherits a name so deservedly honoured in literature as that of the author of "Les Morticoles" should have written such a work is a matter for regret; that he should have seen fit to vilify the members of an honourable profession is rather a subject for indignation.

[1] LANCET, Nov. 17th, 1894.

PRIVILEGES ON THE RAILROAD.

A LARGE NUMBER of railway companies have recently entered into an arrangement involving important concession to their *employés* in the matter of travelling by line. "Privilege" tickets, such as have been granted locally by many companies for some years past, are, we understand, now to be interchangeable between stations on the lines of any two of the companies who have become parties to the agreement. These tickets are to be charged at one-quarter the ordinary fare, and will be issued not only to the *employés*, but to their wives and such of their children as are living with and are dependent upon them. It is anticipated that the scheme will involve very little additional expense, and will bring in some gain of revenue to the companies, as the people who will chiefly use the tickets would probably not travel at all if required to pay the full fare. We understand that this courteous consideration of the companies is not to be extended to their medical staff. We venture to hope that the claims of the railway medical officers will not be lost sight of. It is true that the duties are seldom arduous; but, on the other hand, the pay is seldom good, and the privilege is one that would be highly valued and likely to result in the railways easily obtaining the services of the best men. The journeys of several children to and from a distant school amount at present rates to a considerable sum, which many a hard-working father would willingly apply for their benefit in some other way, and for many equally obvious reasons the concession would be highly valued by our profession.

"ANTITOXIN" AND "ANTITOXINE."

WE have twice lately had to refer to the inconvenience likely to arise from these two names being given to substances which are intended to be employed for totally different purposes, and already a batch of letters which we have received shows that our contention—that the proprietor of the antipyretic which bears the terminal "e" would do well to use another name—was fully warranted. In the minds of many persons in the profession confusion has already arisen, and the "very liberal use of explanatory circulars to both doctors and chemists" which was promised by the proprietor of the antipyretic, so far from mending matters, has made them worse. We much fear that the ultimate impression will be that antitoxin, with or without the final "e," exists in two forms—as a liquid and as a powder. That the two substances should be used under the same conditions is not now being anticipated, though such an error would be quite comprehensible; it is the annoyance, the delay, and the danger likely to arise from the powders being supplied when the liquid is wanted that are so obvious, and, as far as we can see, so irremediable unless the proprietor of the less known remedy retires from his present position. If the value of the new treatment for

diphtheria is ultimately proved there can be no doubt that supplies of fresh antitoxin will be frequently and urgently needed; and, considering the rapidity of the disease and the desirability of early treatment, it is a disagreeable and even very painful reflection that valuable time may be lost while the powder supplied is being sent back to be exchanged for the liquid. This delay has already arisen in one case, and certainly ought never to occur again. If the two terms must exist side by side the only safeguard appears to lie in the adoption of the somewhat cumbrous names "diphtheritic antitoxin" and "antipyretic antitoxine," but we still hope that the substance which has so widely excited interest will be allowed to retain the name under which it is so well known; while "antitoxine," which seems to have been dormant since the registration of the name in the United States in October, 1892, may yet prove its value on its own merits under a new title. This hope is not expressed without a full sense that the earlier proprietor of the title may feel very little inclined to give it up; and what is the exact justice of the case as far as he is concerned is a little difficult to see.

LOCAL TAXATION RETURNS AND PAUPER LUNATIC ASYLUMS.

THE abstract of the accounts of visiting committees of pauper lunatic asylums (other than those belonging to the county and city of London) for the year ended March 31st, 1893, gives the financial tables in three parts. Part I. deals with maintenance accounts, Part II. with building and repair fund accounts, and Part III. with farming and garden accounts. No doubt these tables contain much information with respect to the receipts and expenditure of the various county and borough asylums individually; but it is impossible to make any comparative estimate of the cost of the different asylums by studying the abstract. Its usefulness for purposes of reference or comparison would be very greatly enhanced by the addition of two columns—one giving the population of the county or borough and another giving the average daily number of inmates during the year of the asylum in each case. If this slight and easily obtainable addition were made the return would become both useful and interesting to anyone who might take it up for perusal or study.

"ONE MAN, ONE JOB."

THE London County Council has, we are informed, instructed its General Purposes Committee to prepare a standing order prohibiting every officer of the Council—from the highest to the lowest—from engaging in any outside work whatever. The Council, in fact, seeks to lay down in a stringent and sweeping manner the principle of "one man, one job." It is no province of ours to inquire into the soundness of this principle, or even to point out that however thoroughly it may possibly hold good in the mechanical employments at low wages it need not necessarily hold good in higher and less obvious walks of life; but surely the new standing order will, if it comes into force, have one result that the Council has not anticipated, or, at any rate, has not understood: it will prove a direct deterrent to science, for it will prevent a large body of men from doing excellent literary work. In our opinion this is so serious that we cannot refrain from expressing a hope that the new standing order may be found to contain special words of exemption meeting this contingency. For from every point of view—public, private, logical, and sentimental—to prevent their officers from occupying their leisure time in literature because such writing would be "outside" work must be wrong. In the first place, the maxim "one man, one job" does not apply here, for the officers of large public bodies enjoy unique opportunities, and therefore are not, when they give the results of their experience to the world in a book, depriving a fellow creature of the chance of doing the same. No one without the unique opportunity can write the book. In the second place, such literary work will often be the recreation of men engaged during the day in the round of official routine, and not the strictest of trades unions as yet proposes to exercise control over the play-time of its members. In the third place, by as much as such public officials have incomparable material at their disposal, by so much does the world at large lose if the body that employs them prevents them from disseminating their knowledge.

MEDICAL COÖPERATIVE STORES IN BERLIN.

SOME time ago a medical coöperative society was established in Berlin for German medical men, and this, it seems, has recently excited the ire of a certain "Association for the Protection of Commerce and Industry," which has retaliated by publishing a threatening letter as an advertisement in the Elberfeld local journals. The document is addressed "To Medical Men," and says: "We have learned that stores have been established in Berlin for the use of German doctors, a proceeding which makes a fresh development in the coöperative societies scandal. The 500 members of our association beg to inform you that they will no longer employ any doctor who belongs to the Medical Coöperative Society."

A SEVERE CASE OF MULTIPLE NEURITIS.

IN a recent number of the *Neurologisches Centralblatt* there appeared an abstract of an interesting case published by Professor Leyden in the *Berliner Klinische Wochenschrift*. The patient was a woman twenty-seven years of age, who had been ill since the commencement of 1892. She came under observation in May, 1893, and at that time was in a most helpless condition. She was unable to move her extremities, and could not raise herself or sit upright. Her memory was much impaired, and she was low-spirited and emotional. The extensor groups of muscles were much wasted, the knee-jerks were absent, and conduction of painful impressions was delayed. The patient was much wasted. No distinct cause could be found to account for the condition, and Professor Leyden regarded the case as probably one of rheumatic multiple neuritis. On account of the extremely severe character of the disease the prognosis was somewhat doubtful, but energetic treatment by means of gymnastic exercises, electricity, and strychnia injections was in the course of ten months effective in completely restoring the patient to health and activity.

TYPHOID FEVER AT NEWPORT.

THE town council of Newport have, as the result of a lengthened discussion, decided to proceed with works connected with the sewer outfall which will prevent the damming up of the sewage in the town sewers at every tide, and thus give a chance to the existing system of sewer ventilation to act without causing that nuisance which has been complained of. But in one division which was taken the execution of the necessary works was only carried by the casting vote of the chairman, and it is evident that there is as yet no unanimity as regards this question, which has already been under debate for a number of years. We have already indicated that the epidemic has extended beyond the area of any influence of the Newport sewers, and this under circumstances that make it clear that some of those attacked could not have been exposed in any way to the sewer emanations. This fact adds materially to the suspicion which attaches to the Newport water-supply, which is derived from chalk wells in Carisbrook, a place that still pours its most offensive excreta and refuse into cesspools sunk into

the same geological formation. And this suspicion is confirmed by the announcement that water is now, if practicable, only to be taken from one well, and that either this, or another, well, which is deemed to be at least under suspicion, is, on Mr. Baldwin Latham's advice, to be surrounded by a "puddle" so as to prevent soakage into it from the surrounding subsoil. So, also, bacteriological investigation of the water is to be made, but we are not told how the water was collected for this purpose, and as it is notorious that the ordinary method adopted in taking samples for chemical analysis is rather adapted to defeat than to aid any proper bacteriological inquiry it will be of interest to learn the circumstances under which the samples were procured. In the meantime we learn with satisfaction that the Infectious Disease (Notification) Act has at last been adopted, and we understand that Dr. Theodore Thomson is pursuing his investigations on behalf of the Local Government Board, being assisted in the work by Mr. Evan Evans, one of the Board's temporary medical staff. During the week ending Nov. 24th the new attacks of typhoid fever in Newport itself ranged from about four to nine daily; the numbers rose again somewhat in the early part of the next week, but since then the daily average may be set down as about four or five. The story of this outbreak shows a serious state of affairs, for already the attacks that have occurred during the epidemic in this comparatively small borough have reached some hundreds. Indeed, the epidemic is on a scale of exceptional magnitude and area of extension. Cases also still occur outside and around Newport; and it is clear that very decided action is called for by way of controlling the disease.

DOMESTIC WATER CISTERNS.

THE need for regulations requiring the covering and cleansing of domestic water cisterns is amply demonstrated in the statements which Dr. Waldo, the medical officer of health of the parish of St. George-the-Martyr, Southwark, has made in his annual report for 1893. He furnishes an abstract of a report which he presented after inquiry made into the condition of the cisterns attached to the forty-one "model" dwellings scattered throughout the district. These cisterns, for the most part situated on the roof, were often imperfectly covered and were in most cases within a few feet of the openings of the soil pipe ventilators. Not only was this danger in question, however, for in addition the state of the contents of these receptacles was frequently filthy, the water being covered with smuts, and in some instances decayed vegetable matter lay two inches thick along the bottom, or the sides of the cisterns were coated with slimy filth an inch thick. Apparently private dwellings were no better, and here too the cisterns were often placed over waterclosets or near dustbins in the front areas. It is pleasing to note, therefore, that the vestry have adopted by-laws under the Public Health (London) Act, 1891, with regard to the covering and periodic cleansing of house cisterns; but, judging by what Dr. Waldo says, the enforcement of the by-laws so adopted will be no light matter, and will call for close supervision for some time to come.

TESTIMONIAL TO DR. HUGHLINGS JACKSON.

THE retirement this year of Dr. Hughlings Jackson, F.R.S., from the active staff of the London Hospital has seemed to his colleagues a fitting opportunity for commemorating the services which he has rendered to medicine by presenting him with a testimonial, a movement with which we need hardly say we are fully in accord. It is undoubted that Dr. Jackson's researches have advanced our knowledge of cerebral disease in more than one recognised stage, and that, as the promotors of the testimonial tell us in their circular, "the increased precision in the diagnoses of diseases of the brain and the success of modern cerebral surgery are largely owing to Dr. Hughlings Jackson's work and bear eloquent testimony to the practical and far-reaching character of his views." Readers of THE LANCET have had recent evidence of the precise and accurate nature of his clinical observations in the "Neurological Fragments" which he has frequently contributed to the columns of THE LANCET. The wide bearing of Dr. Jackson's work and the general influence that it has had on our science at large make it perfectly right that an appeal should be made to the medical profession generally in behalf of any testimonial that may be presented to him; but inasmuch as the clinical work upon which his discoveries have been founded was largely done in the wards of the great hospital with which he has been connected for over thirty years the movement will especially recommend itself to all London Hospital men. The members of the committee appointed to undertake the details of the testimonial, which it is proposed should take the form of a portrait in oils, to be placed in the medical college of the London Hospital, and a presentation of plate to Dr. Jackson, are as follows: Dr. Stephen Mackenzie, Dr. A. E. Sansom, Dr. T. Gilbart Smith, Mr. Waren Tay, Mr. F. Treves, and Mr. Munro Scott. Dr. Percy Kidd and Mr. J. Hutchinson, jun. (15, Cavendish-square), are acting as honorary secretaries to the Testimonial Committee, and all subscriptions should be sent to the latter gentleman. It is intended if possible that each subscriber of two guineas and upwards should have a black-and-white reproduction of the portrait.

THE PREVENTION OF SMELLS BY A FILM.

AN interesting observation on this subject has been brought to our notice by a correspondent. It consists in the fact that when a few drops (three) of eucalyptus oil are thrown upon the surface of the water in the pan of a watercloset before it is used the smell of the fæces subsequently added is prevented from escaping. This seems to be due to the formation of a film of oil over the surface of the water and of the fæces, so that the emanation of objectionable smells is prevented. Oil of eucalyptus would appear to be unique in the possession of this property, since other oils, used with a view of reducing what is to many the nauseating smell of eucalyptus, failed to effect the same result. This point is, however, receiving further investigation at the hands of Mr. J. Fletcher, F.C.S.; but in the meantime we confess to being a little incredulous as to whether this method would serve as an effectual preventive of disagreeable smells arising when fæcal matter is undergoing decomposition and when foul gases are being disengaged in visible bubbles.

CENTRIFUGAL FORCE IN THE EXAMINATION OF SPUTUM.

THE employment of centrifugal force as an aid to the speedy and easy examination of urinary deposits has long been employed in laboratories with marked success, and it is, therefore, not to be wondered at that the same means has now been adopted as an aid to the examination of sputum. A search for tubercle bacilli and elastic tissue in the sputa of doubtful cases of chest disease has now become a recognised routine in practice, but difficulties are frequently experienced in detecting bacilli or fibres owing to the sparse numbers in which either may be present. Recognising these drawbacks to diagnosis, Drs. Ashton and Stewart[1] have introduced a method which ought to prove of great value. The instrument utilised to produce the required centrifugal force is a machine made by Mr. F. F. Metzger of Philadelphia, as a modification of the

[1] Medical News, Oct. 6th, 1894.

hæmatokrite of Blitz-Kedin, the calibre of the glass tube in which the precipitation is to take place being two and a half millimetres in diameter and in length about fifty millimetres. The sputum is prepared by placing a small quantity in a porcelain dish and actively stirring it for a few moments with a glass rod. Under this treatment the sputum soon becomes, without the addition of any diluting fluid, a thin liquid, free from lumps and apparently of homogeneous character. The precipitating tubes are then filled, the sputum being drawn into them by means of rubber tubing having attached to one end a small rubber bulb to produce the necessary suction. The tubes are now placed in the centrifuge and rapidly revolved for at least two minutes. With a speed of 10,000 revolutions per minute this is ample time to produce complete precipitation of the more solid portions of the sputum. The sputum will then be found to have separated into two layers—that at the distal or peripheral end of the tube being yellowish or greenish in colour, and that at the proximal or central extremity appearing as a slightly turbid, almost transparent, watery fluid, which by the microscope is found to contain no cellular elements whatsoever. In the peripheral end of the tube the microscope reveals, closely packed together but their integrity not in the least impaired, the various forms of epithelial and pus cells contained in the sputum, and with these, if present, elastic fibres and tubercle bacilli, which, concentrated in the above manner, are detected with far greater certainty than by the unsatisfactory methods usually employed.

THE DIFFUSION OF SMALL-POX.

THE number of fresh attacks from small-pox in London was again trivial last week, but even so it was just double that of the week preceding, having been 4, though no deaths were registered. The patients remaining under treatment last Saturday were 31 in number, against 51, 42, and 33 on three Saturdays preceding; and the cases admitted to hospital last week were 6, as compared with 12, 3, and 2 in the preceding three weeks. In the midlands small-pox was in evidence in several places, multiple attacks being reported from Wolverhampton, and an increase at Aston Manor; Birmingham also showing a further increase, with 30 cases and 3 registered deaths. Only three or four attacks occurred in the limits of the city of Liverpool; but news comes to hand of an outbreak of small-pox on board the training ship *Clarence* in the River Mersey, over half a dozen boys being at the close of November in hospital. Indeed, towards the end of the month there were in hospital 100 cases of the disease belonging to the city. In Dublin the epidemic showed some signs of decline in the week ended Nov. 24th, during which the admissions to hospital numbered 18, a decrease of 7 on the preceding week, and of 19 on the week still earlier. The discharges were also 18, and the registered deaths 3. The decline in new attacks was considerable; but whilst the epidemic is slight when compared with preceding prevalences, its complete subsidence will depend, says the Registrar-General, mainly upon the rapid and successful vaccination of susceptible persons.

BOILER EXPLOSIONS.

THE severe season may not be far off when we may expect to be confronted once again with the question as to the best means of preventing the bursting of boilers and the freezing of water-pipes, the frequent occurrence of which last winter involved, unfortunately, the loss of many lives. The issue, therefore, of the Board of Trade report on boiler explosions, a copy of which we have received, is timely. It would appear that out of 104 cases of boiler explosions occurring in 1893-94, and investigated by the Board, not one explosion is attributed to unavoidable accident. Of the twenty-one explosions of heating apparatus used in places of worship, assembly rooms, or for domestic purposes the catastrophes were without exception caused by the inlet or outlet pipes becoming blocked with ice. This, of course, was followed by either the over-heating and collapse of the boiler-plate or the accumulation of undue pressure in the boiler. The Board of Trade strongly urge the addition of safety valves to this class of heating apparatus, a recommendation made in the Manchester Steam Users' Association report some time ago, a digest of which by the chief engineer appeared in THE LANCET of March 19th, 1894. The stupidity of the "odd-jobbing" man who is usually entrusted with the care of the apparatus hardly needs comment, and the necessity of a safety valve is self-evident. We observe that in no case was there any competent inspection of the apparatus used for heating purposes. This is a matter, we suggest, which is well deserving the attention of the new district and parish councils, as the interference of some public authority seems necessary to ensure their proper supervision.

MIDWIVES AND DEATH CERTIFICATES.

ON Monday last Mr. Braxton Hicks held an inquest at Battersea upon the body of a male infant, and, upon the facts then before him, made some noteworthy remarks. The child, it appeared, was born on the previous Monday, and had died forty-eight hours later. No medical man attended the mother; but a midwife wrote a certificate that the death of the child was consequent upon exhaustion at birth. This certificate was given to the undertaker, who very properly handed it to the coroner's officer; and as a result of a necropsy it was then discovered that the child had died from pleuro-pneumonia. On the same day the death certificate of another Battersea midwife was in question in a court—this time in a police court—and Mr. Braxton Hicks was himself the prosecutor. The facts went to show that the defendant had certified an infant to have been still-born when as a matter of fact it had lived for eighteen hours, the proceedings being taken under the Registration of Births and Deaths Act. The woman was fined, Mr. Braxton Hicks saying that he would in this particular case be satisfied with the infliction of a moderate penalty. But his words from his coroner's chair in summing up the case we have first referred to sufficiently proved that he did not regard the misdemeanour as a light one. He pointed out in the clearest and simplest manner that to permit such irregularities in death certification to go unnoticed must be an enormous incentive to crime, an opinion we cordially endorse.

USEFUL HINTS FOR SANITARY PRACTICE.

LITTLE by little the sound fabric of sanitation is being built up. Experience and prudence are daily adding to its growth, and if such additions are not usually of imposing magnitude or of pressing importance they are often of solid value. As examples we may mention two proposals which have recently been explained at some length in the daily press. One of these has for its object the introduction into workhouses of a special form of notification. It will be readily believed that itinerant paupers as a class are but little troubled by sanitary inspectors; yet they are, like their more fortunate neighbours, liable to many varieties of contagious or infectious disease. The guardians of one union, with commendable judgment, have recognised this fact and acted upon it. By their direction a daily medical inspection of outgoing vagrants has been instituted within their jurisdiction, and has been in progress for the past three months. The result is that, though no dangerous form of contagious disease has been revealed by the examination, as many as 3 per cent. of the paupers examined have

been found to be suffering from scabies. The detention and treatment of these persons must imply a certain benefit, which is not limited to themselves. Of far greater utility would be the detection among them of graver but neglected maladies, and we must not forget that small-pox, typhoid fever, and other fevers have been met with in the "ambulant" form. This system of inspection, therefore, is one which might prove to be of considerable public advantage, and as such we would commend it to the attention of the Local Government Board. Another proposition hardly less important, though it may appear to rest on lower ground, is one to which Dr. Sykes, the medical officer of health of St. Pancras, lately called attention with regard to the desirability of providing some form of district lethal chamber wherein stray animals or superannuated domestic pets might be painlessly destroyed. By our present want of arrangement many such are suffered to die where they may and are to be left there, or when dead are tossed out of doors to constitute a disgusting and unwholesome nuisance in our thoroughfares, vacant spaces, and elsewhere. It would certainly be best if this insanitary chaos of mortality were reduced to order, and the practical adoption of the suggestion above noted should be well within the competence of all municipal bodies.

A MEMORIAL TO THE LATE DR. STURGES.

A MEETING will be held in the board-room of the Westminster Hospital on Wednesday, Dec. 19th, in expression of a very general feeling that the institution should possess some memorial of its late senior physician, Dr. Octavius Sturges. The meeting has been convened by Dr. Allchin, senior physician of the hospital, Mr. Cowell, senior surgeon, Dr. Donkin, Dr. de Havilland Hall, and Mr. Bond. Nothing definite has yet been decided as to the form the memorial should take, this being necessarily dependent on the voice of the meeting and on the pecuniary response to the appeal; but it has been suggested that the founding of a prize in the medical school would be the most sensible and practical method of perpetuating Dr. Sturges' memory.

THE NATIONAL SOCIETY FOR THE PREVENTION OF CRUELTY TO CHILDREN.

IF reasons were called for besides that which must be its chief recommendation—the excellent character of its work—why public support should be freely given to the National Society for the Prevention of Cruelty to Children we should still be at no loss in promoting its claims. Its position is essentially that of a national organisation. It is no mere transformation of local sentiment, however creditable; it seeks to alleviate the pain and sorrow of no favoured section of child life. The existence of tyranny in any corner of the land provides its motive and occasion. As regards the intelligence, vigour, and sincerity of its operations there is no question. They are truly and well summed up in a brief notice which lays the claims of the society before the public, and which asserts that the sole object of its efforts is "to secure to every little English child that its life shall be at least endurable, and that it has stopped or ameliorated the needless pains and tears of 93,359 children." Thanks, no doubt, in a measure to business depression and to trade disputes, not infrequently the occasion of much avoidable privation and cruelty, the Society is confronted at the close of the year with a liability of £10,000. Retrenchment further than that which is now practised, with a field of activity so extended and in the face of a necessity so imperative as that which absorbs its energies, appears hardly possible. We would, therefore, use an early opportunity of affording those who desire to alleviate the burden of human suffering an explanation of the deserving work that has been carried out, and is being carried out, often in the face of great difficulty, by this truly national society.

As we have already announced, the Clinical Society of London propose to give up their next evening (Friday, Dec. 14th) to a consideration of the antitoxin treatment of diphtheria. Dr. Washbourn and Dr. E. W. Goodall will give an account of a series of cases treated in this manner, and it is expected that an important discussion will take place. All members of the profession who have employed this mode of treatment are invited to give the society the benefit of their experience. If they do not happen to belong to the society we may remind them that it is in the power of any member to introduce visitors.

OWING to the very great pressure on our space this week we have been compelled to hold over many interesting and important communications; among others Mr. Shirley Murphy's admirable presidential address on the Study of Epidemiology, delivered before the Epidemiological Society recently. The medical officer of health for the Administrative County of London will be found to have come to some remarkable conclusions with regard to the relation between school attendance and the prevalence of diphtheria.

THE next meeting of the North London Medical and Chirurgical Society will take place on Thursday, Dec. 13th, at the Great Northern Central Hospital at 8 P.M., when a paper will be read by Dr. James Galloway on the Bacteriological Diagnosis of Diphtheria.

MR. SAMUEL WEST, M.D. Oxon., F.R.C.P. Lond., has been appointed as Examiner in Medicine at the University of Oxford.

DR. WITHERS MOORE died at Burgess Hill, on Wednesday, at the age of seventy-four years.

ENFORCEMENT OF SANITARY LAW IN RURAL DISTRICTS.[1]

BY A. J. SOUTHEY, M.R.C.S. ENG.,
MEDICAL OFFICER OF HEALTH TO THE ETON RURAL SANITARY AUTHORITY.

ALTHOUGH the greatest attention is being paid at the present time by sanitary scientists and engineers concerning the best methods for dealing with sewage matter in rural districts, yet excepting in a few isolated instances but little progress appears to be taking place in the application of any one of them, so that cesspools and foul drains still frequently work the most deadly mischief by poisoning not only the air but the water in the shallow wells and watercourses in their locality, which is frequently the only supply, not only to the inhabitants, but to the cows yielding the milk to which so often we hear of disease being referred. This is in a great measure owing to two facts: (1) that the laws under which rural sanitary authorities act permit of unnecessary delay in the compliance with orders for the abatement of nuisances and the supply of pure water, even where waterworks' mains are within reach; and (2) that they permit of constant infringement, even if such infringement has caused disease or death, without any penalty being imposed, so long as defaulters ultimately comply with them. The first of these facts will be evident on perusal of what usually takes place when an inspector receives a complaint of a nuisance—namely: (1) he has to inspect it; (2) he writes to the responsible person requesting its immediate abatement; (3) finding that nothing has been done he reports it to the board [of the sanitary authority]; (4) the board orders him to serve a notice for its abatement in a time varying from three to ten days,

[1] A paper read at the Bucks Sanitary Conference, Oct. 31st, 1894.

according to what has to be done; (5) the order being still uncomplied with, the board orders proceedings to be taken before the bench; (6) the case frequently cannot be brought before the bench for a week or ten days; (7) the bench hears the case, orders the defaulter to comply with the order, and gives him a still longer period to do the necessary work. Now the letting off of these small arms (all, be it remembered, with blank cartridge except the last) takes on an average about six weeks, during which time the nuisance has to be endured and does whatever harm it may be capable of in a perfectly undisturbed manner. The second of these facts—namely, that the laws permit of nuisances arising (free of penalty) so long as defaulters do not refuse to abate them—is at the root of nearly all the cases of pollution of water in wells and watercourses. Now, it is unreasonable to expect that efficient sanitation under such laws can be effected, for the simple reason that they permit of defaulters, who are usually landlords of the small (impecunious) order, doing nothing until the nuisance—frequently producing disease or death—has come into action and carried out its deadly work. Practically, in fact, a man can poison his neighbour with impunity, so long as he uses a foul drain, cesspool, or other refuse matter as his agent. Suppose that the criminal law was so constructed and that those convicted could escape punishment by promising "not to do it again," how long would citizens' lives be safe or their pockets unpicked? Now, if this state of things were reversed and a penalty imposed upon defaulters for omission to safeguard against nuisances arising, or for carelessness in regard to the general sanitation of dwellings which are let to the poor frequently at exorbitant rents, there would soon arise a demand in rural districts for the application of some of the many and excellent methods for dealing with sewage matter which are constantly being brought to the notice of medical officers of health by sanitary scientists and engineers. The sanitary authority to which I have the honour of acting as medical officer has provided itself with the two most necessary agencies for stamping out infectious disease—namely, an isolation hospital and disinfecting apparatus; besides having adopted the Building By-laws, the Notification of Infectious Disease Act, and the Dairy and Cowsheds Act, and enforced separate closet accommodation for each house throughout the district (without which it is impossible to isolate infectious disease among the poorer orders), and consequently have now done all in their power to maintain the health of the population under their charge while acting under the present laws.

Colnbrook, Slough.

MEDICINE AND LETTERS.[1]

BY SIMEON SNELL, F.R.C.S. EDIN.,
OPHTHALMIC SURGEON TO THE SHEFFIELD GENERAL INFIRMARY.

MANY well-known members of the world of letters have been men who, whilst taking a prominent and lasting place among the *literati*, have not ceased their active connexion with their profession. Such were Sir Thomas Browne, Sir Samuel Garth, Dr. Arbuthnot, and the late Dr. John Brown of Edinburgh. Another, and doubtless a larger, class have found that the claims of literature—or, it may be, an unfitness for the practical side of their profession—have necessitated its abandonment. Of such a class are Goldsmith, Aikin, Smollett, Lever, and Albert Smith. It is not my intention to pursue my subject back to any very remote period. I will commence with a character that played no inconsiderable part in the bright Elizabethan epoch: Thomas Lodge, M.D. The son of a Lord Mayor of London, and born probably in 1557, seven years before Shakespeare, he went to Oxford, took his Arts degree, entered Lincoln's Inn, and followed a most varied career. Literature absorbed his attention, but he sailed also as a freebooter into Spanish waters and subsequently made an adventurous voyage to Brazil. It was not until a later period, when his literary life was practically over, that his mind grew serious and turned to the study of physic. In 1600 he took his degree at Avignon, and two years later he was incorporated at the University of Oxford. He resided in the country, and came to London to see his patients, where he enjoyed a lucrative practice till his death in 1625. Lodge was a voluminous writer. He wrote plays both alone and conjointly with Greene, but it is chiefly as a lyric poet and prose romancer that he attained his greatest excellence. He was also a satirist, and produced some articles of a professional kind, notably one on the Plague, an affection from which he died. His "Delectable History of Forbonius and Prisceria" aided in the budding of romance which has blossomed into the long line of fiction with which our literature has been so saturated. His poem also of "Glaucus and Scilla" was directly imitated by Shakespeare in his "Venus and Adonis," and there is a remarkable similarity in style. Mr. Gosse remarks that "there can be no doubt that the young Shakespeare borrowed from the young Lodge his tone, the mincing sweetness of his versification, and the fantastical use of such words as 'lily,' 'purple,' 'crystal,' and 'primrose.'" His romance of Rosalynde, in mixed prose and verse, is the most interesting of his works, and supplied Shakespeare with a plot for "As you Like It."

Arthur Johnston (1587–1641) flourished somewhat later than Lodge. He was an Aberdeenshire man, and probably attended the colleges at Aberdeen, but he also studied medicine abroad, visited Rome, and took his M.D. degree at Padua in 1610. He was a writer of Latin verse. His first volume of epigrams was published in Paris, where he was practising as a physician in 1609 or 1610. His best epigrams are said to have been written when he was settled at Sedan, which was then one of the six Protestant Universities of France. He was in London in 1625 and wrote an elegy on the death of James I., afterwards becoming physician to Charles I., to whom he dedicated his versification of the Songs of Solomon. Laud, to whom his Penitential Psalms were dedicated, used him as a rival to George Buchanan, but it is not considered that he was in all respects Buchanan's superior. The work on which his reputation really rests is his "Metrical Latin Psalter." He was Rector of Aberdeen University in 1637, a few years before his death.

Sir Thomas Browne was born in London in 1605. After taking his degree in Arts at Oxford he visited the Universities of Montpellier and Padua, and in his twenty-eighth year took a medical degree at Leyden, being subsequently incorporated at Oxford. Shortly after his return to England he settled in practice as a physician at Shibden Hall, near Halifax, where the work for which he is most famous must have been written, in or about the year 1635. It was not, however, published until 1642, the year of the outbreak of the Civil War. Browne was a Royalist, and by this time he had removed to Norwich, where he acquired a great professional reputation, was knighted by Charles II., and died beloved and wealthy in 1682. Evelyn visited him at Norwich, and wrote that his whole house was "a garden, paradise, and cabinet of rarities, and that of the best collections, especially medals, books, plants, and natural things, amongst others a collection of the eggs of all the fowl and birds he could procure." Of Browne's numerous works the "Religio Medici" is the best known, and was famous from the first. At the time of composing it he could not have been more than about thirty. According to our present way of thinking the style is curious and almost cumbersome, but he wraps up and puts before us what may be called truisms very clearly. It abounds with the stores of learning which are so characteristic of his writings, and deals with his own feelings and views on matters pertaining to religion. He was accused of Atheism, Deism, and other heretical opinions, and the Pope placed the book in the "Index Expurgatorius." That Browne inclined towards the Reformed Church of England may be accepted. Admirable editions have in recent years been published by Dr. Greenhill and Dr. Lloyd Roberts of Manchester. Browne wrote several other essays. "Pseudo-Epidemica, or Enquiries into very many received Tenets and commonly presumed Truths, which examined prove but Vulgar and Common Errors," appeared in 1646, and contained an extraordinary amount of research. "Christian Morals and Letters to a Friend" was another, and he wrote in 1647 a letter addressed to Dr. Henry Power, of New Hall, Yorkshire, on the education of the practitioner of medicine. In 1658, the year of Cromwell's death, he published "Hydriotaphia, or Urn Burial," suggested by the discovery of funeral urns in Norfolk. The whole essay teems with learning, and a remarkable amount of reference to customs and manners of nations and individuals is crowded into each page.

[1] Abstract of a Presidential Address delivered before the Sheffield Literary and Philosophical Society.

William Coward (1657?–1725) graduated at Oxford as M.D. in 1687, and practised at first in Northampton, but removed to London in 1694. Among his works was "Second Thoughts concerning the Human Soul" (1702). Locke and Swift spoke contemptuously of it, and in answer to the replies it drew forth Coward wrote "The Grand Essay, or a Vindication of Reason and Religion against the Imposture of Philosophy." Complaints having been made, he was called to the Bar of the House of Commons, and offered to recant anything at variance with religion and morality, but the book was ordered to be burnt by the common hangman.

Sir Robert Sibbald (1643–1712) was educated at St. Andrews and took his medical degree at Leyden. Having settled in Edinburgh, he was appointed physician and geographer to Charles II., was knighted, and received a command to write a history of the Kingdom of Scotland. He was instrumental in the foundation of the College of Physicians at Edinburgh, and was the first appointed Professor of Medicine to the University there. He was the most learned antiquary of Scotland, and a voluminous writer on antiquarian, religious, and medical subjects. The most interesting men of this—the reign of Queen Anne—period were Locke, Sir Richard Blackmore, Sir Samuel Garth, and Dr. Arbuthnot. John Locke (1632–1704) is of course best known for his essay on the "Human Understanding." Having commenced practice in partnership with David Thomas, he afterwards took the M.B. degree at Oxford, and visited patients with Sydenham; he also wrote a poem to preface a work of Sydenham. Having been compelled by political reasons to leave England, he withdrew to Holland, returned to this country with William and Mary, and published his Essay in 1690, receiving £30 for the copyright of the first edition. Twenty editions had appeared by the close of the eighteenth century. Sir Richard Blackmore was born probably in 1653 and died in 1729; there is a mural monument to his memory at Boxted in Essex. He graduated as M.A. at Oxford in 1676, and was at first a schoolmaster. Afterwards he graduated as M.D. at Padua, engaged busily in practice, held office at the College of Physicians, and was physician to William III. and to Queen Anne. His first literary work was "Prince Arthur, an Heroic Poem." He was a voluminous writer in prose and verse on religion, history, and medicine; but all his works have been very severely criticised. Sir Samuel Garth (1661–1719) was the eldest son of William Garth of Bowland Forest in the West Riding of Yorkshire. He graduated as M.D. at Cambridge in 1691, settled in London, became a Fellow of the College of Physicians, and rapidly obtained practice and wealth. He was Physician in Ordinary to George I. on his accession and Physician General to the army, and was knighted on the occasion. His most important literary work was "The Dispensary." At the time of his admission to the Fellowship the College of Physicians was engaged with its charitable design of prescribing for the sick poor and providing them with medicines at prime cost. This was the forerunner of the out-patient departments at all our large hospitals. The scheme was adopted unanimously; but later, when it was proposed to have the medicines made on the premises, it was vehemently opposed by the apothecaries, who managed to get a party in their favour inside the College. Garth was a warm advocate of this charitable enterprise, and in its behalf he wrote "The Dispensary." Little opposition was heard of afterwards. It has been described as "a mock-heroic battle between the physicians and the apothecaries." The opposition are severely handled, and all the medical men of the day who had any part in the dispute are brought under review, their identity being hidden by pseudonyms. It was immensely popular and went through many editions; the one I have is dated 1706, and is the sixth. Allowing for poetic licence and the biting sarcasm which pervades the work, it has been said that it must have been true to nature or the work would not have obtained such an immediate and extensive popularity. Sir Thomas Millington, the President of the College and a warm friend of the scheme, is addressed under the name of Machaon:—

"Machaon, whose experience we adore,
Great as your matchless merit is your power,
At your approach the baffled tyrant Death
Breaks his keen shaft and grinds his clashing teeth.
To you we leave the conduct of the day;
What you command your vassals must obey.
If this dread enterprise you would decline,
We'll send to treat and stifle the design;
But if my arguments had force, we'd try
To humble our audacious foes or dye."

Under the name of Mermillo, one of the opposition (Dr. Gibbons) is thus satirised:—

"Oxford and all her bells can tell,
By this right arm what mighty numbers fell.
While others asked whole months to slay,
I oft despatched the patient in a day.
With pen in hand I pushed to that degree,
I scarce had left a wretch to give a fee.
Some fell by laudanum, and some by steel,
And death in ambush lay in every pill."

Dr. Arbuthnot (1667–1737) was a scion of an ancient Scotch family. He came to London and at first taught mathematics and wrote a book on the "Laws of Chance." Two years later he entered at Oxford, and graduated as M.D. at St. Andrews in 1696. He got into good practice, and being at Epsom when the Prince of Denmark was taken ill he became physician to the Prince, and later also to Queen Anne. Sir Hans Sloane, the physician and naturalist, and founder of the British Museum collection, was his friend and correspondent. Congreve was another friend, and his name finds a place in the verse of Pope, Swift, and Gay, Pope's epistle to Dr. Arbuthnot being counted among the best and most interesting of his works. Speaking to Boswell of the writers of the time of Queen Anne, Johnson said: "I think Dr. Arbuthnot the first man among them. He was the most universal genius, being an excellent physician, a man of deep learning, and a man of much humour." A committee of the Royal Society was appointed in 1705 to superintend the printing of the observations of the Rev. John Flamstead, Astronomer Royal; it consisted of Sir Isaac Newton, Christopher Wren, and Arbuthnot. In 1697 Arbuthnot published his first work of importance, entitled "An Examination of Dr. Woodward's Account of the Deluge," and in 1701 appeared his "Essay on the Usefulness of Mathematical Learning." Arbuthnot would be called a Unionist in the present day, for when the matter of the union of Scotland and England was before Parliament he wrote a sermon, delivered at the Mercat Cross at Edinburgh, in which he strongly favoured that scheme. "The Memoirs of the Extraordinary Life, Works, and Discoveries of Martinus Scriblerus" was almost entirely the work of Arbuthnot, though he was assisted by Pope and others. I cannot here mention his other works except two—"The Art of Political Lying" and the one which has most interest for us, "The History of John Bull, or Law is a Bottomless Pit." This has been described as an admirably effective and still amusing party squib, but it is not known whether Arbuthnot originated or only adopted the general name of John Bull for the English race. He is described as follows: "Bull in the main was an honest, plain-dealing fellow, choleric, bold, and of a very unconstant temper; he dreaded not Old Lewis (France) either at back-sword, single falchion, or cudgel play, but he was very apt to quarrel with his best friends, especially if they attempted to govern him; if you flattered him you might lead him like a child. John's temper depended very much upon the air: his spirits rose and fell with the weather-glass. John was quick, and understood his business very well; but no man alive was more careless in looking into his accounts, or more cheated by partners, apprentices, and servants."

(To be continued.)

THE ARMY MEDICAL SERVICE.

THE discontent that has prevailed in the Army Medical Service has been growing in force of late, and it has now apparently reached an acute stage. In THE LANCET of the 1st inst. we adverted briefly to a very vigorous and ably written article that appeared in the *United Service Magazine* on "Army Medical Organisation," which had come to hand shortly before going to press. In connexion with this subject some editorial articles and letters animadverting very strongly on the present system of medical administration have also since appeared in the pages of a service contemporary. It seems to be undoubted that a grave amount of dissatisfaction prevails.

The old and political motto of "Measures not men" is a very partial and incomplete platitude; for good men as well as good measures are alike necessary for the efficient organisation and successful administration of a public service. We have always held that what is best for the public is best not only for a medical department but for the medical profession

as a whole, and we desire to approach the discussion of this matter, as far as practicable, from that point of view; but the personal equation is a factor in every question and cannot be altogether ignored, and we may as well, therefore, begin with ourselves. Years ago, and before the abolition of the regimental system in favour of unification, we carefully and even anxiously considered the relative merits of these two systems with, we may add, a strong predilection in favour of the former. We took counsel with some of the best and most intelligent medical officers of various ranks in the service, with the result that the unification system was considered to be the best for the public, the army, and the medical service, and the only one adapted for the purposes of war. It was foreseen even then that the progress and development of the principles and practices of modern warfare had rendered a change inevitable, unless we deliberately desired to court future failure in the field. The strongest evidence of the sincerity of the convictions of medical officers in this respect was afforded by the fact that several of them regretfully admitted that they were sacrificing their personal predilections and tastes as well as the social advantages and influence which their regimental position gave them. At the same time, it must be added, as reference to the correspondence columns of the journals of that day will show, that many regimental medical officers were not altogether satisfied. There is no need, even were it practicable, to go into all the reasons, *pro* and *con.*, that were then adduced. But there seems to be every reason why the policy then advocated in the pages of THE LANCET should be referred to now, for the spirit and tendency of what we published at that time were very much at one with the views advanced by the able writer of the article on "Army Medical Organisation." The policy of this journal was the formation of a Royal medical staff corps, or Royal corps of surgeons, on the lines of the other scientific corps of the service, the officers of which were to be masters of their own households—that is to say, supreme within the limits of their charge and duty as the medical service of the army, but strictly circumscribed within those limits and what appertained thereto; that their military rank and position should, of course, be an assured one, their style and title being expressive, however, of the profession to which they belonged. After passing out of Netley the young army surgeon might have temporarily served with a regiment in order to obtain any necessary acquaintance with military discipline and army routine. It was held that medical officers forming a unified corps and serving at hospitals in competition with one another and under the eyes of their departmental superiors would have afforded the head of their service a full knowledge of the qualifications and characters of his officers, and thus have enabled him to put his hand at once upon those best qualified to fill a variety of positions and appointments in time of war. We thought, and still think, that if some such scheme had been adopted, and introduced with reasonable regard to the then existing interests of regimental medical officers, it would have been perfectly successful; and we might go further and say that even the abolition of relative rank would not, in our opinion, have entailed the consequences it did if the simple precaution had been taken at the same time, or soon afterwards, to publish a clause for insertion in the Queen's Regulations laying down the various departmental ranks, coupled with the corresponding army rank of captain, colonel, and so on, as the case might be. This would have secured substantive rank, but have left the titles as they were. But nothing of the kind was done; on the contrary, it is a matter of history that regimental medical officers were removed from their corps in a very peremptory and arbitrary fashion, and the new system of unification was started under most unfavourable conditions. The Royal Warrant, issued during the *régime* of the late Sir William Muir, was universally recognised, however, as a great stride in advance, and formed an epoch in the history of the medical service. That warrant and a unified department contained the seed or germ which, with ordinary care, should have developed and brought forth much fruit. And no doubt this would have been so but for the occurrence of events which soon followed—viz., the Egyptian campaign of 1882 and the abolition of relative rank. The medical service, rightly we think, considered itself unjustly and ungenerously treated in the case of the former and deprived of all rank and position whatever by the latter—at a time, too, when substantive military rank and title had been freely bestowed upon officers of other departments and branches of the service. It followed, as a natural consequence, that the medical service was tired of being made a shuttlecock, and its members arrived at the conclusion that only substantive army rank and title would give them authority and power commensurate with their responsibilities. All that has since transpired is matter of recent history. The present compound titles giving the actual army rank with a professional prefix are those recommended by the Camperdown Committee. The present position is represented as one of alleged unpreparedness of the medical department for field service and of great dissatisfaction and unrest among its members. The causes, real and alleged, of this state of things have been set forth in the *United Service Magazine*, the *Pall Mall Gazette*, and other journals. One of the most striking and lamentable features in the published letters of correspondents is, we regret to say, an expression of distrust and dissatisfaction with the administration of the department. That the medical service cannot be efficient unless it makes itself acquainted with all the *matériel* it will have to use, and rehearses in peace all the duties it will have to practise, in war is so obvious that it goes without saying; and that the army medical staff and staff corps should be amalgamated into one homogeneous medical service—but not as the medical division of the army service corps—seems equally clear. But let us take *seriatim* a few points that have been recently raised. As medical officers share all the dangers of war they should also share equally with combatant officers all its honours and distinctions; it must be acknowledged by all that they have never showed any lack of courage and gallantry or self-sacrifice. But while this is so, it is surely right and fitting that in a professional scientific service there should be more opening and more reward for original work, professional merit, and conspicuously efficient discharge of duty than exist at present. After all, the country pays its army surgeons mainly for their responsibility and work in conserving the health and curing the diseases of the soldier; but it holds out no rewards or inducements to good and successful work in this respect. The responsibility and labour that fall upon a medical officer in charge of a big base hospital in war are enormous, but not so the reward; the honours and promotion almost exclusively fall to those in the front, where probably the medical officer does little more than share the common danger with any other soldier at the time, and does not possibly run anything like the risk or incur the anxiety and responsibility of his *confrère* during an epidemic or in cholera camps.

One of the really well-grounded causes of weakness and dissatisfaction which require remedying is the frequent removals of medical officers, to the grave inconvenience and injury of the service generally and the discomfort of all concerned. Another is, that the advantages conferred by recent warrants have not been extended to India and are ignored by the Government of that country. The introduction of the station hospital system into India effected a very large saving for the Indian Government, partly at the expense of senior medical officers, who found their labour and responsibilities greatly increased when in charge of these hospitals without any extra emolument in the shape of charge pay. Medical officers desire that their directing head should have an officer, and not a civilian, as his secretary, the latter not being, they allege, in touch with the service. This is the case with the surgeon-major general and principal medical officer of Her Majesty's forces in India.

We do not see what would be obtained by the abolition of voluntary retirement after twenty years' service, because it is a boon to medical officers of which, we believe, comparatively few avail themselves; and if they did, the public has, in a service like the army medical, obtained the best that a man has to offer in twenty years. It cannot have escaped notice that promotion by selection for the upper ranks, although laid down by regulation and recommended by War Office Committees, seems to have altogether fallen into desuetude of late years. It appears to us that appointments for the upper grades should be for fixed periods. It is manifestly unfair and injurious to the interests of the Service that an officer should continue to serve in the upper ranks over an extended period of time and block promotion. There are other matters on which we need not enter. We have, however, touched on most of the points that have been recently put forward in various directions, and in doing so we have been content to allow the published statements of medical officers to speak for themselves, and have striven to avoid imputations or personal reflections of any kind.

THE DENTAL HOSPITAL OF LONDON.

Two questions of pressing importance were brought to the notice of the past and present students and friends of the Dental Hospital of London on the occasion of the annual dinner, which was held on the 1st inst. in the Whitehall Rooms of the Hôtel Métropole. The question of the status of the dental profession was one, and the other was the need of a new building wherein to carry on the ever-increasing work of the hospital, which provides the deserving poor with gratuitous advice and surgical aid in diseases and irregularities of the teeth. Many of the past students now in practice took advantage of this opportunity to express their satisfaction at the steps that the General Medical Council had taken in officially condemning unprofessional conduct. At the same time the speakers agreed in urging upon the Council the desirability of electing a dental representative as a useful and necessary adjunct to that body. In addition to the steps already taken in the interests of the dental profession, we may point out that at the last meeting of the Council it was reported that they had approved the appointment of Mr. C. S. Tomes as inspector to visit and report on the examinations conducted by the bodies granting qualifications in dentistry. It is with considerable satisfaction that we observe how unanimous is the desire amongst present dental surgeons to establish a code of professional ethics in dentistry similar to that in the medical profession. By united action in this matter, what has long been a stigma on the profession will be removed, and the suppression of undesirable and unprofessional practices must follow. Sir Dyce Duckworth gave an epitome of the views held and of the action of counsel on this subject. In regard to the needs of a new building for the work of the Dental Hospital of London, the Chairman, Mr. S. J. Hutchinson, stated that of the £40,000 required £14,000 had yet to be raised. The need of increased accommodation is evident from the fact that the present building, though possessing an imposing exterior, is only twelve feet deep, and it is even admitted by the managing committee that the sanitary provisions are very defective and the administrative work is seriously hampered by the want of accommodation for dental and other appliances. The contemplated cost of the new building is £40,000, of which £6000 have been received from those directly connected with the institution and £5000 from the public, while the value of the old site is estimated at from £15,000 to £20,000, so that at present £14 000 are yet required. Sir James Crichton Browne, F.R.S., in a powerful and entertaining speech, in which he proposed the toast of the Hospital and School, dwelt with considerable emphasis on the increased tax on the resources of the hospital in consequence of the increased needs in regard to dental treatment of the deserving poor. When the hospital was removed to Leicester-square in 1874 19,255 cases were treated, and last year no less than 55 396 (nearly three times as many) gained admission to its doors. At the dinner on Saturday the Chairman was supported, in addition to those incidentally mentioned, by Sir John Williams, Bart., Dr. Glover, Dr. Coupland, Mr. Allen Stoneham (Chairman of the managing committee), Mr. Joseph Walker (Treasurer of the hospital), Mr. Storer Bennett, Mr. Charles Tomes, Mr. W. H. Ash, Mr. Stanley Boyd, Mr. Hepburn, Mr. F. G. Hallett, and Mr. Morton Smale (the dean). The toasts that followed were agreeably interspersed with some excellent selections of music arranged by Mr. Herbert Schartau.

LUNACY IN HOSPITALS.

THE case of John Round, whose death formed the subject of inquiry last week in the St. Pancras Coroner's Court, has brought prominently under public notice the inconveniences which may arise from the occurrence of mental aberration as incidental to the course of a disease. The facts of the case, as proved in evidence and reported in the *Times*, were as follows.

On Oct. 30th the man was working at his lathe at home when he cut one of his fingers. The wound was bandaged and poulticed, and he went on working till Nov. 6th, when the hand became so painful that he went to the London Temperance Hospital, Hampstead-road. On Nov. 8th he was detained there by Dr. Collins, but his hand became worse and his leg began to be affected. On Nov. 17th he was removed by the relieving officer to the St. Pancras Workhouse, and there detained in the lunacy ward. He was very noisy at night, and on more than one occasion had to be placed in a padded room. Within three days of his admission he was seen by a magistrate and an independent medical man, who refused to certify as to the state of his mind. The consideration of the case was adjourned for ten days, and during this interval death occurred.

Upon these facts both the coroner and the jury expressed a strong opinion that better provision should be made for dealing with an emergency of this kind. No doubt was entertained that the delirium from which the patient suffered was due to septicæmia, and the view which prevailed in court was very forcibly expressed by the coroner in a conversation with Dr. Dunlop, the medical superintendent of the workhouse, which is reported as follows :—

The Coroner : Was the deceased removed under the Lunacy Act ?—Yes. The witness added that he had admitted to the insane ward a large number of persons suffering from various diseases with delirium. Many hospitals had no accommodation for such patients.—The Coroner : Then I am right in saying that such persons have to remain paupers for the time being at the workhouse. I know that your wards are excellently fitted, but that is no reason why sick persons should he branded as pauper lunatics.—The witness said that all classes came into the workhouse insane ward. Only the other day they admitted a young man who had just come into a fortune of £30,000.—The deceased man was without doubt suffering from delirium caused by blood poisoning, but he had to be dealt with as an insane person under the recent Lunacy Act.—The Coroner : Then, if through disease any of us become delirious, we are liable to be detained in a parish insane ward as a lunatic ?—The Witness : Yes.—The Coroner : But I hardly think that a person who becomes delirious through an accident like that of the deceased should be detained as a lunatic.—The Witness : We have to act in accordance with the Lunacy Act.—The Coroner : And you think the deceased came under that Act ?—The Witness : That, I think, is the spirit of it.—The Coroner : Then, after such a man recovers from his illness he runs the risk of being branded for the rest of his life with the stigma of having been a lunatic, although he has perhaps only suffered from slight delirium.—The witness said he did not think the deceased came under the category of a lunatic, but under the Act he had to be treated as though he did. It was very desirable that such cases should be treated in isolated wards in hospitals instead of being sent to workhouses to be dealt with under the Lunacy Act. Under that Act if the fact was reported to the relieving officer that any sick person was delirious, whatever his circumstances and whether properly attended in a house with plenty of accommodation or not, that officer had power to remove him as an insane person and was bound in the words of the statute to bring the case before a justice.—The coroner remarked that the case in question was a curious application of the Lunacy Act. The matter was one of public importance, inasmuch as any person, whatever his station, might be taken ill and become delirious, and they all ran the risk of being treated as lunatics.

The jury signified their adhesion to the view expressed in this conversation by the coroner by adding to a verdict of "Accidental Death" the following rider :—"The jurors, having heard in evidence that the deceased was a patient in the London Temperance Hospital, suffering from septicæmia, and then, when he became delirious, he was, at the instigation of the hospital authorities, removed by the relieving officer as a pauper to the workhouse under the provisions of the Lunacy Act, would respectfully suggest to the hospital authorities the consideration of the advisability of making provision in the hospital for such cases by the addition of some isolation wards if necessary, so that such patients may be treated otherwise than as pauper lunatics ; and they would further suggest that when similar or other cases are transferred from one institution to another a medical history of such case should be forwarded with the patient." Dr. Dunlop said he agreed with the jury's recommendation, which he thought ought to prove very useful ; and the coroner promised to forward a copy to the Temperance Hospital authorities.

It will be seen from a letter which we have received from

the secretary of the London Temperance Hospital, and publish in this issue (see p. 1376), that the hospital authorities were prevented, through no fault of their own, from attending the inquest and offering explanations which would have tended to show that the patient's mental condition was due to causes independent of the accident, and have removed the suspicion apparently entertained by Dr. Danford Thomas and the St. Pancras jury that they had been somewhat wanting in consideration for their patient.

We should be sorry to dispute the moral obligation which lies upon those who provide medical attendance for the poor to consider their comfort in every way, and not less by manifesting respect for their feelings than for their physical needs; but it seems to us that the difficulties to which this case draws attention are not such as can be overcome merely by providing additional accommodation within the walls of hospitals. It lies within the undoubted province of a medical man to place restraint upon his patient if such restraint is a part of the cure or proper to be exercised upon him *in his own interest*. It is also the right of a medical man, or indeed of any bystander, to interfere with the liberty of a lunatic for the purpose of preventing him from doing injury to himself or to other persons—that is, to restrain the violence of a dangerous madman; but cases constantly arise which do not fall within either of these categories. It is often in the highest degree necessary to control the actions of a lunatic in the interest of his neighbours, and in particular this is so in a hospital ward, where quiet is a matter often of life-and-death importance. Mere talkativeness may render a patient quite unfit to share the hospitality of a sick ward, although his irregularities do not threaten any outburst of violence. What is to be done in such a case? It would be useless to have the most completely equipped isolation ward, for the law does not authorise the hospital authorities to confine their patient to it. The conditions under which his liberty may be abridged are exactly laid down in the Lunacy Act, and the right to use such separate wards for the given case of delirium by confining the patient there would involve a revolutionary alteration in those conditions. It should, therefore, be understood that, serious as would be the responsibility in the case of many hospitals if they were called upon, like the London Temperance Hospital, to equip isolation wards for delirious patients, there is a still more serious difficulty behind of which the coroner of St. Pancras and his jury took no account—namely, that when they were equipped their use would be greatly restricted and in many cases wholly prevented by the operation of the law.

PHYSICAL EXAMINATIONS OF CANDIDATES FOR THE CIVIL SERVICE.

THE Civil Service Commissioners have recently issued the following notice:—

With a view to prevent parents and guardians from incurring the inconvenience and expense of preparing for examinations candidates who may be physically unfit for the Civil Service, it is suggested that the candidates be submitted to examination by the medical adviser of the family, or any other qualified medical practitioner, to whom the following points may be submitted as those towards which his attention should be chiefly directed. It is to be understood that this private examination is merely suggested as a guide to parents and guardians, and to lessen the chances of disappointment, and that it is by no means intended to take the place of, or to influence in any way, the regular official physical examination.

1. A weak constitution, arising from imperfect development or weakness of the physical powers of the body, hereditary or otherwise. Especial attention should be directed to this point, as delicacy of constitution, though positive disease is absent, may lead to rejection, and for some branches of the Service (especially the Post Office) want of general vigour may disqualify. 2. Chronic eruptions on the skin or scalp. 3. Disordered intellect, epilepsy, paralysis, or other signs of disease or disorder of the nervous system. 4. Blindness or defective vision, except a moderate degree of ordinary short-sight; but candidates for the Customs outdoor service must not be short-sighted. 5. Impaired hearing, or discharge from one or both ears, disease or thickening of the lining membrane of the external ear. 6. Disease of the bones of the nose or of its cartilages and polypus; disease of the throat, palate, or tonsils. 7. Scrofulous disease of the glands of the throat or neck, external cicatrices from scrofulous sores. 8. Functional or organic disease of the heart or bloodvessels, deformity or contraction of the chest, phthisis, hæmoptysis, bronchitis, chronic coughs, or other symptoms of tuberculous or other diseases of the organs of respiration. 9. Disease or enlargement of the liver, spleen, or kidneys. 10. Any disease of the alimentary canal. 11. The existence of any serious congenital or acquired defect or malformation, especially in the head, feet, or hands; paralysis, weakness, considerable lameness, impaired motion, or contraction of the upper or lower extremities, from whatever cause; distortion of the spine, of the bones of the chest or pelvis, from injury or constitutional defect.

In addition to the above the following may be cited as raising serious doubts as to a candidate's fitness:—1. Rupture: This is in some respects a question of degree and of the duties of the proposed situation. For clerkships and some other sedentary occupations a properly supported rupture may not be a disqualification. 2. Varicose veins and varicocele: These should be cured by operation, but in the case of situations which are physically of a trying nature a tendency to varix may be held to disqualify. 3. Loss of sight of one eye by mechanical injury: If the remaining eye is sound and sufficient, and not likely to become affected, the question of fitness will be specially considered when a candidate has passed his examination. 4. Stammering: This is in some respects a question of degree and of the duties of the proposed situation; but any considerable impediment in speech renders a candidate generally liable to rejection.

The Commissioners will not undertake to define more closely any of the disqualifying defects or diseases referred to above, nor will they offer any opinion as to any questions of degree in regard to them.

IN ADVOCACY OF THE PUBLIC ABATTOIR.

A DEPUTATION from the Church of England Society for the Promotion of Kindness to Animals waited upon the Public Health Committee of the London County Council last week to advocate the erection of public abattoirs in London under the direction of the County Council. The petition presented was in itself brief, but the strength of it lay in the signatures attached, which included those of the Bishops of London, Exeter, Durham, Southwell, Ely, Wakefield, Manchester, Marlborough, Coventry, Argyll and the Isles, and Truro, as well as those of the Lord Mayor of York, Sir William Flower, Lady Frederick Cavendish, the Dean of Norwich, the Hon. Fitzroy Somerset, the Vicar of Kensington, and nearly 400 others. At the request of the society the President of the Model Abattoir Association, Sir Benjamin Ward Richardson, acted as spokesman of the deputation presenting the memorial, which was read by the honorary secretary, the Rev. F. Lawrence. The other members of the deputation were the Right Rev. the Bishop of Southwark, Canon Reith, Dr. Norman Kerr, the Rev. W. J. Hocking, and Mr. John Colam, secretary to the Royal Society for the Prevention of Cruelty to Animals.

Sir Benjamin Richardson in his short speech urged that public abattoirs in place of private slaughter-houses presented the following advantages: (1) they brought the method of slaughtering and dressing animals for food at all times under the public eye; (2) they led to careful inspection of animals as to their state of health before slaughter; (3) to the introduction of the most painless and most rapid modes of slaughter; (4) to the most perfect cleanliness and dressing of animal food and treatment of the offal; (5) to the health and cleanliness of the men occupied in the work; (6) to the immediate and complete inspection of the carcases after death, on the Jewish system, or on an improvement of that system, in which skilled veterinary surgeons would be the inspectors; and (7) to the better lairage of animals brought from the market to the abattoir. Sir Benjamin Richardson added that the members of the Society did not wish to press for the establishment of large numbers of abattoirs in London. They were more inclined to the idea that the abattoir system, with preserving chambers, should be carried out near the great lines of railways all over the kingdom, so that the animals, without being driven great distances, to the most

serious failure of economy, could be slaughtered, dressed, preserved, and sent by railway to London ready for the market. At the same time it was felt that a certain limited number of abattoirs should be erected by the County Council in London, not only for the convenience of a necessary amount of slaughter there, but as model institutions, from which similar institutions in the country could be imitated. In respect to ecomony, health, kindness to animals, prevention of disease, and favouring advantages to the men engaged in the vocation, the public abattoir presented so many and distinct advantages he did not think the County Council could long hesitate as to the course which it ought to take, and which, he was sure, would find in all directions public favour. He believed, too, that when the system was understood it would be to the commercial interest of those who were engaged in trade, and that all the representatives of the meat trade would be both convenienced and benefited. The speaker, after closing his remarks, was invited to answer several questions on the position which the proposed new abattoirs ought to take and the working of those which he had visited at home and abroad. In making his replies he suggested that the members of the society of which he was president were inclined to think that permission might fairly be given for a time to the possessors of first-class private slaughter-houses for their buildings to remain, subject to the direction of the County Council, on the conditions that they were not by their position injurious to health and that they included all the advantages of the public abattoir, so that everywhere alike the process of preparing animal food for the market should be effectively carried out with a perfect system of inspection at every centre by officers—veterinary inspectors—under the appointment and in the pay of the County Council. Some further observations of an equally practical kind were added by Mr. John Colam, and the deputation, after receiving the thanks of the committee, retired feeling that an exceedingly good impression had been made. We have so often in these columns advocated the hygienic improvement solicited by the deputation that we need not stay to urge that we trust their expectations may be speedily fulfilled.

SOCIETY OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE following letter, signed by Mr. Herbert W. Page (chairman of the central executive committee) and Mr. Fred. C. Wallis (hon. secretary), has been sent to the Fellows of the College:—"Dear Sir,—At a meeting of Fellows, held at the College of Surgeons on July 5th, 1894, the following resolution was adopted: 'That the Council be requested to take steps for obtaining the opinion of the Fellows on the mode of election to the office of President.' The Council, however, have not thought it expedient to undertake this, and it has been suggested that the inquiry should be made by somebody outside the Council. We beg, therefore, to submit for your perusal the accompanying propositions bearing upon the mode of election to the office of President, and shall be obliged if you will place your initials opposite the proposition with which you agree on the accompanying postcard, *sign*, and return it to the Honorary Secretary as soon as possible." The propositions referring to the election of the President are as follows:—

PROPOSITION I.—The President shall be elected by the Fellows. 1. The President is the head of the surgical profession in England, and should be elected by the widest possible constituency. 2. He should be elected annually by ballot of the Fellows. 3. Such an election would confer the greatest dignity upon the office of President, and would make the position a really representative one. 4. The President of the Royal College of Physicians is elected by the Fellows. 5. The candidate for the post of President need not be a member of the Council.

PROPOSITION II.—The President shall be nominated by the Council and elected by the Fellows. The Council should nominate every year at least three Fellows whom they consider to be fitted, in the interests of the College, to hold the office of President; the selection of one of these three candidates for the office of President should be decided by a ballot of the whole body of the Fellows.

PROPOSITION III.—The President shall be elected by the Council from amongst their number, as at present. 1. The President is not elected with the primary idea that he is the head of the surgical profession. He is in the very first place the director or chairman of an important corporation. 2. He must, above all things, be acquainted with the complex affairs of the College, and have a capacity for administration. No one but a member of the Council could lay claim to an intimate knowledge of the business of the College. 3. The members of the Council are elected by the whole body of the Fellows, and in electing a councillor it is assumed that he is considered by the electors to be fitted at some future time to hold the office of President. Of his powers of business management the Council must have the best opportunity of forming an opinion. 4. If the President were to be directly elected by the whole body of the Fellows, the possibility of the election being unduly influenced by undesirable canvassing cannot be disregarded. 5. The Fellows of the Royal College of Surgeons do not correspond to Fellows of the Royal College of Physicians. The Fellows form the governing body of the Royal College of Physicians, whereas the Council is the governing body of the Royal College of Surgeons.

SANITATION AT CONSTANTINOPLE.

(FROM A SPECIAL CORRESPONDENT.)

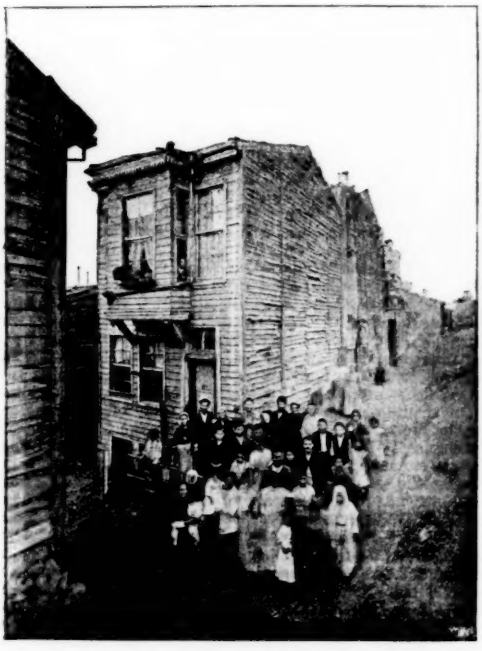
(Continued from p. 1369.)

AT Constantinople stagnation of sewage is more dangerous than in many other towns. There are many hills and many valleys, so that if the drainage does not flow easily through the sewers the pressure becomes so strong and the volume so swollen by the rains and the drainage from the more distant hills that a great portion of the sewage must force its way through the leaks and fissures in the sewers and invade the subsoil, especially of the low-lying districts. Thus, in the low-lying Topkhaneh quarter, which is at the foot of the Pera Hill and faces the entrance of the Bosphorus, the cellars of the houses are constantly invaded with sewage. Then, again, facing the Golden Horn the lower part of the Cassim Pacha valley is formed of alluvial soil saturated throughout with sewage. The population here is extremely poor. Many sleep on the ground floor of the houses, have no proper bedsteads, and literally lie on the filth washed down from the higher districts; and immediately above is one of the largest cemeteries of Constantinople. For the last five hundred years there have been projects proposed for the drainage of the Cassim Pacha valley, and as yet nothing efficacious has been done. The sewer that does exist is worse than useless. I have been to see the outfall where the boatmen wait for hire, plying their *kaiks* through the black sewage. The stench is appalling, and this is not due to the volume of sewage, but rather to the fact that the flow is not constant, that the sewage there is stale sewage which has taken a long time in forcing its way down to the water through innumerable impediments. Close to this abominable outfall there are some large barracks, and here the subsoil is so foul that the soldiers are no longer allowed to inhabit the lower floor. Needless to add, this was one of the districts where cholera was most prevalent. On the hillsides forming the valley there are a number of very picturesque, eccentric-looking, rickety wooden dwellings. In spite of the crowd of eager and excited inhabitants, who could not be persuaded to keep still, I contrived to photograph a house where there had been cases of cholera. This photograph serves to show that there is no road, no pavement, no gutter. (Fig. 1.) The houses are built on the hillside without any attempt at levelling the soil. They are made of planks rudely put together and supported behind by laths and plaster. In the three-storeyed wooden house as many as seven persons, Greeks as a rule, live in one room. It will be seen that the entrance door is by the side of a steep embankment, and gives access to the middle floor, while one of the walls of the lower floor is against the hillside. The dampness of this lower room may well be imagined. There are no drains here, not even gutters. In the back of the house a hole in the earth receives all the dejecta. The rain water rushes down the hillside and carries some of this filth through the soil into the neighbouring

houses. Close by I visited another house which has but one storey. A woman lived here who had cholera. About six feet from her bed, and within the walls of the house, separated from the bed only by a tumbledown door that would not close properly, was the open, leaking midden closet, giving off all its stench into the living and sleeping room of this woman. It is not surprising that she suffered from cholera during the epidemic; but it is surprising that, under such circumstances, she was able to recover from the disease. In another cottage which I visited, where there had been a death from cholera, I found that the wall on the hillside was only four and a half feet high. The floor of the rooms was two feet below the level of the earth at the back of the house. The principal room was surrounded by a divan, the floor well washed, the windows hung with spotlessly white curtains, and the whole house very clean. Indeed, the greater part of the inhabitants of the Cassim Pacha valley who are Greeks and Christians are very clean.

In the Turkish quarters of Constantinople, of course, the cleanliness is even greater. The Mahomedan religion pre-

FIG. 1.



House in the Cassim Pacha District.

scribes the saying of prayers five times a day, and a previous ablution is indispensable. The peasantry often rigorously observe this rule. In a busy town it is impossible to wash both feet and hands five times a day; but, nevertheless, the people are constantly washing themselves. Nothing can be more abominable than the stench, the absence of water for flushing purposes, of traps, and of proper drainage, at the public urinals and latrines. More especially is this the case at the latrines in the square of the Yéni Djami Mosque at Stamboul. Yet here, as elsewhere, there was an attendant at the door, who poured a little water over the hands of the people as they left the place. It is no easy matter to penetrate the house of a Mahomedan, but I have questioned a number of medical men and also the public disinfectors, who by reason of their calling were forced to enter private houses, and they all unanimously render high tribute to the great cleanliness of the Turkish people. Certainly I have nowhere seen such thorough cleanliness both of person and of household as at Constantinople. It seems, therefore, a most unnatural and lamentable fact that, while the people are so well disposed and so ready to observe the fundamental law of hygiene prescribing personal and domestic cleanliness, the authorities should compel them to live over open middens and on soil saturated with sewage. Assuredly this is not in keeping with the spirit of the teaching of the Prophet; this is not the cleanliness which he so wisely made a matter of religion.

(To be continued.)

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Bethnal-green Urban Sanitary District.—Dr. George Bate remarks in reference to the employment of women in factories after pregnancy that he is in favour of extending the period of prohibition from four weeks to twelve. He considers four weeks a sufficient period to safeguard the health of the mother but not that of the child. Dr. Bate has made inquiries in his district with regard to the employment of child-bearing women in factories and workshops, but he reports that the practice is far from common. He states that occasionally the female hands in factories continue their occupation for a time after marriage, but that if they become pregnant they leave work six or eight weeks before their expected confinement. Dr. Bate thinks that Section 17 of the Factory and Workshops Act (1891) is a dead letter in his district, and he asks in reference to the words of the Act, "knowingly employing a woman, &c.," How is a manufacturer to know the date of a woman's confinement? "How, for example, is it possible to check a woman's statement as regards the date of her confinement who leaves work six weeks before confinement and returns a fortnight afterwards?" Dr. Bate suggests that the production of a certificate of birth should be made obligatory on all women returning to employment after child-bearing.

Kingston-on-Hull Urban Sanitary District.—In dealing with the prevalence of diphtheria in Hull during 1893 Dr. Wright Mason remarks that "local insanitary conditions are a necessary factor in the origin and diffusion of diphtheria, and it is interesting to note that in those districts in which diphtheria was most prevalent in Hull since the introduction of auxiliary steam power to our sewage system there has been a material lessening of the mortality from diphtheria." The death-rate from enteric fever was in excess of that which has occurred for the last eighteen years, and amounted to 0·46 per 1000. In the matter of infantile diarrhœa Dr. Mason points out that the Irish population, who invariably suckle their infants, suffer from a less infantile mortality than those occupying less crowded districts, and whose infants are artificially reared. Measles was added to the list of notifiable diseases in 1893, and Dr. Mason states that since its notification measles has been recognised in Hull as no longer a trivial disorder, and that the public pay attention to its early medical treatment and its accompanying complications. This, at least, is one good effect of notification, quite apart from hospital isolation. Dr. Mason's report contains some capital charts.

Kingston-on-Thames Urban Sanitary District.—In his last quarterly report Mr. Beale Collins, medical officer of health of this district, brings to the notice of the sanitary authority the measures taken in New York for the recognition of cases of diphtheria by means of bacteriological examination at a central laboratory. Mr. Collins thinks that the cost of erecting a laboratory of this nature at Kingston would be between £30 and £40, and that the expenses of maintenance would be but small. He adds that the establishment of such a laboratory would not obviate the necessity for an isolation hospital, but it would greatly reduce the number of beds required for the treatment of diphtheria. We must confess to being not quite convinced on the latter point. There can of course be no two opinions as to the value of a bacteriological laboratory such as Mr. Collins suggests, but it appears to us that its value would be chiefly confined to those cases in which the presence of the Löffler bacillus was demonstrated. Where negative results were obtained it would be somewhat unsafe to act upon them.

Hackney Urban Sanitary District.—Dr. King Warry states that the notification of infectious diseases has been of the

greatest assistance in leading to the detection and abatement of a very large number of nuisances. There is still, he reports, necessity for more sanitary inspectors in his district; in fact, inspection of workshops could not be attempted in 1893 owing to the insufficiency of staff. He states that there is a growing feeling among sanitarians that diphtheria is in some way caused by defective sanitary conditions. We imagine this statement would be challenged by a good many sanitarians. A table showing the large number of children not accounted for as regards vaccination in Hackney is given in Dr. Warry's report, and the figures are commended to the attention of the Hackney guardians. During 1893 the state of the Lea in the vicinity of Hackney appears to have been offensive, and Dr. Warry made analyses of the Leyton and Walthamstow sewage farm effluents which enter the Lea at Temple Mills; the samples were, he states, "not much better than raw sewage." The matter was subsequently made the subject of a complaint to the Lea Conservancy Board, but we do not gather from his report that much good resulted.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns 6357 births and 3570 deaths were registered during the week ending Dec. 1st. The annual rate of mortality in these towns, which had increased in the preceding three weeks from 16·9 to 17·3 per 1000, further rose last week to 17·8. In London the rate was 16·1 per 1000, while it averaged 19·0 in the thirty-two provincial towns. The lowest rates in these towns were 13·8 in Huddersfield, 14·4 in Croydon, 15·2 in Bristol, 15·8 in Birkenhead, and 15·9 in Wolverhampton; the highest rates were 22·7 in Derby, 23·4 in Bolton, 23·5 in Gateshead; 23·7 in Oldham, and 25·1 in Swansea. The 3570 deaths included 431 which were referred to the principal zymotic diseases, against 375 and 354 in the preceding two weeks; of these, 132 resulted from measles, 89 from diphtheria, 57 from whooping-cough, 55 from diarrhœa, 53 from "fever" (principally enteric), 42 from scarlet fever, and 3 from small-pox. No fatal case of any of these diseases occurred last week in Plymouth or in Bristol; in the other towns they caused the lowest death-rates in Leicester, Brighton, and Preston, and the highest rates in West Ham, Portsmouth, Burnley, Blackburn, and Gateshead. The greatest mortality from measles occurred in Sunderland, Derby, Leeds, Burnley, Portsmouth, and Gateshead; from whooping-cough in Halifax and Swansea; from "fever" in Wolverhampton; and from diarrhœa in Bolton and Blackburn. The mortality from scarlet fever showed no marked excess in any of the large towns. The 89 deaths from diphtheria included 54 in London, 12 in West Ham, 4 in Birmingham, and 3 each in Liverpool and Blackburn. Three fatal cases of small-pox were registered in Birmingham, but not one in London or in any other of the thirty-three large towns. There were 31 cases of small-pox under treatment in the Metropolitan Asylum Hospitals, but not one in the Highgate Small-pox Hospital on Saturday last, the 1st inst., against 51, 42, and 33 at the end of the preceding three weeks; 6 new cases were admitted during the week, against 12, 3, and 2 in the preceding three weeks. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 2148, against 2258, 2254, and 2198 on the preceding three Saturdays; 191 new cases were admitted during the week, against 215 and 223 in the preceding two weeks. The deaths referred to diseases of the respiratory organs in London, which had been 245 and 261 in the preceding two weeks, further rose to 283 last week, but were 194 below the corrected average. The causes of 65, or 1·8 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Cardiff, Nottingham, Salford, Bradford, and in nine other smaller towns; the largest proportions of uncertified deaths were registered in West Ham, Brighton, Birmingham, Leicester, and Sheffield.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 20·3 and 21·3 per 1000 in the preceding two weeks, further rose to 21·4 during the week ending Dec. 1st, and exceeded by 3·5 per 1000 the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 14·4 in Leith and 17·2 in Perth, to 23·7 in Glasgow and 24·4 in Paisley. The 611 deaths in these towns included 22 which were referred to measles, 17 to whooping-cough, 15 to diarrhœa, 14 to diphtheria, 11 to scarlet fever, 8 to small-pox, and 4 to "fever." In all, 91 deaths resulted from these principal zymotic diseases, against 60 and 80 in the preceding two weeks. These 91 deaths were equal to an annual rate of 3·2 per 1000, which was 1·1 above the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of measles, which had been 12 and 19 in the preceding two weeks, further rose to 22 last week, of which 17 occurred in Glasgow. The 17 deaths from whooping-cough showed an increase of 7 upon the number in the preceding week, and included 11 in Glasgow and 3 in Edinburgh. The fatal cases of diphtheria, which had been 12 and 13 in the preceding two weeks, further rose to 14 last week, of which 6 occurred in Glasgow and 4 in Edinburgh. The deaths referred to scarlet fever, which had been 10 and 6 in the preceding two weeks, rose again to 11 last week, and included 6 in Glasgow and 3 in Aberdeen. The 8 fatal cases of small-pox were all recorded in Edinburgh. Of the 2 deaths from "fever," 2 occurred in Glasgow and 2 in Aberdeen. The deaths referred to diseases of the respiratory organs in these towns, which had been 155 and 142 in the preceding two weeks, rose again to 164 last week, but were 106 below the high number in the corresponding week of last year. The causes of 48, or nearly 8 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had increased in the preceding three weeks from 22·8 to 24·3 per 1000, declined again to 21·2 during the week ending Dec. 1st. During the past nine weeks of the current quarter the death-rate in the city has averaged 22·3 per 1000, against 15·9 in London and 19·6 in Edinburgh. The 142 deaths registered in Dublin during the week under notice showed a decline of 21 from the number in the previous week, and included 10 which were referred to the principal zymotic diseases, against 10 and 14 in the preceding two weeks; of these, 3 resulted from small-pox, 3 from diarrhœa, 2 from "fever," 1 from scarlet fever, and 1 from whooping-cough, but not one from measles or diphtheria. These 10 deaths were equal to an annual rate of 1·5 per 1000, the zymotic death-rate during the same period being 2·0 in London and 3·1 in Edinburgh. The fatal cases of small-pox, which had been 4, 3, and 1 in the preceding three weeks, rose again to 3 last week; 24 deaths have resulted from this disease in Dublin since the end of September last. The deaths referred to different forms of "fever," which had increased from 2 to 5 in the preceding three weeks, declined again to 2 last week. The 142 deaths in Dublin last week included 28 of infants under one year of age and 35 of persons aged upwards of sixty years; the deaths of infants corresponded with the number in the preceding week, while the deaths of elderly persons showed a further slight decline from those recorded in recent weeks. Four inquest cases and 3 deaths from violence were registered; and 64, or more than a third, of the deaths occurred in public institutions. The causes of 11, or nearly 8 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

MOVEMENTS OF THE MEDICAL STAFF.

THE following officers have embarked for India in the *Malabar:* Surgeon-Lieutenant-Colonel Charlton, Surgeon-Captain Mould, and Surgeon-Lieutenants Jones and Slayter. The following have arrived from India in the *Britannia:* Surgeon-Lieutenant-Colonel Macnamara, and Surgeon-Captains Hall and Dobson. Surgeon-Major Stuart, lately arrived from Egypt, has been posted to Aldershot, and Surgeon-Majors Peterkin and Twiss to the South-Eastern District. Surgeon-Lieutenant Walker has been transferred from Dublin to Belfast. Surgeon-Major Nealm has arrived in Ceylon.

ARMY MEDICAL STAFF.

Surgeon-Captain Frederick T. Skerrett, F.R.C.S.I., is placed on temporary half-pay on account of ill-health.

INDIA AND THE INDIAN MEDICAL SERVICES.

Surgeon-Captain S. A. C. Dallas, I.M.S. (Madras), whose services have been placed temporarily at the disposal of the Chief Commissioner by the Government of India (Home Department), is appointed to do duty under the orders of the Civil Surgeon, Nagpur. Surgeon-Lieutenant-Colonel S. B. Haliday and Surgeon-Major J. W. T. Anderson have respectively delivered over and received charge of the Aden Prison. Surgeon-Captain J. S. Lumsden has made over charge of the duties of Superintendent of the Bannu Gaol to Surgeon-Captain H. Fooks. On return from furlough on medical certificate of Surgeon-Captain J. Murray has resumed charge of his duties as Professor of Pathology and Materia Medica in the Lahore Medical College, relieving Surgeon-Captain F. H. Burton-Brown, whose services have been replaced at the disposal of the Government of India. Surgeon-Lieutenant-Colonel H. P. Yeld, Deputy Assay Master, Bombay Mint, subject to Her Majesty's approval, retires from the service from Nov. 15th, 1894.

NAVAL MEDICAL SERVICES.

Staff-Surgeon James William Hambly Hawton has been promoted to the rank of Fleet-Surgeon in Her Majesty's Fleet.

ARMY MEDICAL RESERVE OF OFFICERS.

Surgeon-Lieutenant Campbell Boyd, 3rd Volunteer Battalion, the Queen's (Royal West Surrey Regiment), has been appointed Surgeon-Lieutenant.

VOLUNTEER CORPS.

Artillery: 1st Edinburgh (City): Surgeon-Lieutenant R. M. Robertson, M.B., resigns his commission. 2nd West Riding of Yorkshire (Western Division, Royal Artillery): Surgeon-Major I. Mossop to be Surgeon-Lieutenant-Colonel. *Rifle:* 5th (Irish) Volunteer Battalion, the King's (Liverpool Regiment): John Joseph O'Hagan, M.B., to be Surgeon-Lieutenant. 1st (Exeter and South Devon) Volunteer Battalion, the Devonshire Regiment: Russell Coombe, Gent., to be Surgeon-Lieutenant. 6th (Fifeshire) Volunteer Battalion, the Black Watch (Royal Highlanders): Lieutenant Robert Thomson Ferguson, M.B., is appointed Surgeon-Lieutenant.

VOLUNTEER OFFICERS' DECORATION.

The Volunteer officers' decoration has been conferred upon the undermentioned officers of the Volunteer Force:—*North-Western District: Rifle:* 2nd Volunteer Battalion, East Lancashire Regiment: Surgeon and Honorary Surgeon-Major John Burns, retired. *Eastern District: Rifle:* 2nd Volunteer Battalion, the Suffolk Regiment: Surgeon-Major John Sinclair Holden, M.D. *Western District: Rifle:* 2nd Volunteer Battalion, the Gloucestershire Regiment: Honorary Assistant-Surgeon Thomas James Cottle.

LONDON COMPANIES VOLUNTEER MEDICAL STAFF CORPS.

The annual competition for the Company Challenge Shield took place at the Guildhall on Nov. 28th. Three companies competed, and additional interest was given to the competition as this year it was felt that it would be close and the award difficult. This proved to be the case, and Surgeon-Captain D. M. O'Callaghan, A.M.S., the new adjutant, who acted as judge, in giving his decision, said that all he had seen would have been highly creditable to Regulars, and that he had great difficulty in coming to the decision, which he gave in favour of No. 1 Company, No. 5 being placed second. The work and efficiency of the companies has steadily improved ever since the formation of the corps, which is to be congratulated on the general standard of the competing companies, which were each paraded by two officers:—No. 5, Surgeon-Captain J. Edward Squire, M.D., Lieutenant and Quartermaster G. R. Glenfield; No. 1, Surgeon-Captain Valentine Matthews, Surgeon-Lieutenant H. D. Buss, M.D.; No. 4, Surgeon-Captain T. Horrocks Openshaw, F.R.C.S., Lieutenant and Quartermaster J. H. Bennett. The winning company (No. 1) was drawn from the schools of University College, Middlesex, King's College, and Charing-cross Hospitals, and this is the fourth occasion on which it has been successful in this competition.

A gymnasium class has recently been formed at the headquarters.

ARMY MEDICAL ORGANISATION.

The writer of the article on this subject in the *United Service Magazine* summarises the main requirements of the medical departments as follows: "It must be recollected that wars now between the civilised Powers of Europe will be short and decisive, that the numbers of killed and wounded in the battles of the future will be much larger than in the past, and that the stress on the medical service for the treatment of the sick and wounded and their transport to the base of operations will be infinitely greater, and will require the utmost care and skill. This being so, the medical staff desire that the system which must exist in war time should be practised during peace, for it is only by the experience so gained that they can obtain familiarity with the duties that would devolve upon them during a campaign. They say, and rightly so, that if change takes place in the relations of the army to the department on the eve of war, it places the department in a false position, and but courts disaster and failure. Therefore it is urged that during peace a medical officer should be attached to each corps, that field hospitals should be mobilised during autumn manœuvres, and that ambulance transport should be maintained at our large military centres, complete in every respect for an army corps."

THE JAPANESE WAR HOSPITALS.

The *Standard* lately contained a very interesting account of one of these hospitals from the captain of an American warship on the Asiatic station. He describes the results of a visit paid to the Japanese hospital near Nagasaki, where many of the Japanese soldiers and sailors (wounded in the recent battles) and some Chinese were under treatment. The description is very flattering to the zeal and efficiency of the Japanese medical service. The writer declares that the hospital was the admiration of the English, French, and American surgeons, and that it was organised on modern lines and supplied with the best modern instruments and newest antiseptics. The medical staff were all Japanese, who had graduated in medicine and surgery either in America or England, and then taken post-graduate courses at the Paris and Berlin hospitals. The Japanese infantry arm is the Murata, the invention of a general of that name. The calibre of the rifle is ·315, and the bullet weighs 235 grains. Speaking of the effect of one of these bullets, fired at a distance of about 1000 yards, on the knee-joint of a wounded Chinese officer, it is stated that the thin steel envelope of the bullet had broken, and the joint was a mass of comminuted bone splinters. The limb was, of course, amputated.

THE ARMY MEDICAL SERVICE AND THE PRESS.

There has recently been a remarkably large number of articles and a great deal of correspondence in the daily and weekly press about the military medical service. A well-informed article (to which we alluded last week) on "Army Medical Organisation" is published in the current number of the *United Service Magazine*. The *Medical Magazine* had also an article dealing with the faulty organisation and causes of discontent in the army medical staff. The last number of the *Army and Navy Gazette* has a column and a half of letters, the first of which is signed "A General Officer," who writes very forcibly about the results of his practical experience of the unsatisfactory working of existing arrangements. The *Pall Mall Gazette* has also contained an editorial article and a communication from a correspondent on the state of unpreparedness of the medical service for field service. It seems highly probable that when Parliament meets Mr. Campbell-Bannerman's attention will be called to these matters.

The steamship *Britannia* arrived at Portsmouth on Nov. 29th with 134 invalids for Netley Hospital.

The examination of Surgeon-Captains for promotion has been fixed for Feb. 4th and 5th, 1895.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.—A meeting of this society was held on Nov. 22nd, Mr. Makeig Jones, President, in the chair, when Mr. Atkin exhibited a man on whom he had operated three months previously for Tri-facial Neuralgia. Mr. Richard Favell showed a specimen of Hydro-salpinx of the Right Tube removed from a married woman twenty-nine years of age. Dr. Wilkinson exhibited in a child the remains of a Spina Bifida which had been treated by injection with Morton's fluid. The President, Dr. Martin, Mr. D. James, Dr. McCall, Mr. Atkin, Mr. Pye Smith, Dr. Addison, Dr. Sinclair White, Dr. Dyson, and Dr. Reid took part in the discussion.

Correspondence.

"Audi alteram partem."

"IRISH MEDICAL SCHOOLS' AND GRADUATES' ASSOCIATION."

To the Editors of THE LANCET.

SIRS,—My attention having been called to a paragraph in THE LANCET of Nov. 17th, in which I am reported to have made, at the annual dinner of the Irish Medical Schools' and Graduates' Association, certain comments respecting qualifications for hospital appointments, I shall feel obliged if you will allow me to state in your columns that such comments are wrongly attributed to me, as I did not make any allusion to the subject.—I am, Sirs, yours faithfully,

J. W. HULKE,
President of the Royal College of Surgeons of England.

Lincoln's-inn-fields, London, W.C., Nov. 28th, 1894.

*** The account in question was furnished us in the ordinary course by the secretaries of the Irish Medical Schools and Graduates' Association, from whom we have also received a copy of the following resolution, which was unanimously passed at a meeting of the Council on Wednesday last and sent to Mr. Hulke:—

Copy of Resolution.

"Although, according to the recollection of the majority of the members of Council who were present at the dinner on Nov. 10th, the notice of the speeches published in the medical papers was in substance correct, the Council of the Irish Medical Schools and Graduates' Association nevertheless feels bound to accept Mr. Hulke's disclaimer, and regrets the misunderstanding that has arisen." ED. L.

"THE PAY SYSTEM AT THE GREAT NORTHERN CENTRAL HOSPITAL."

To the Editors of THE LANCET.

SIRS,—The position taken up by the medical staff of the Great Northern Central Hospital would, perhaps, be justified if it were clear that the pay wards will be, as intended, for the reception exclusively "of persons a little above the poorest class." Where, I would ask, is the guarantee in the regulations recently initiated for the admission of pay patients that this will be the class of persons admitted? What is to prevent persons of any class and of any income claiming admission as "persons of limited means"? That is the elastic term chosen to define the class of patients in the regulation sheet. Of course, it is easy to say that there is an understanding to the effect that the house committee will rigorously scrutinise the credentials of candidates for admission. No doubt they will—at least, just now—perhaps for a year or two, or as long as the present attitude of the medical profession generally makes such a strict scrutiny politic. But what will happen in a few years, when the present excitement on the subject has subsided—when there is nothing to appeal to for the guidance of the committee but the printed regulations as they now stand? Then, I venture to predict, the Committee of Management will be led into a different course by a prominent member of that body, who recently stated, with admirable candour, his opinion on the subject to a conjoint meeting of the medical staff and the non-medical members of the governing body. My colleagues at that time will remember that the opinion of that gentleman was that members of a much higher class than those "a little above the poorest" should have the benefit of the pay wards, and that he instanced himself as a fair sample of those admissible. This view was not controverted by any of the non-medical members of the committee. What chance, however, has the hospital of steering clear of the dangers indicated in your able editorial aricle when such opinions as these are openly held by members of the governing body? These opinions may be kept in abeyance for a time, but when the present publicity subsides they will again bud forth and bear fruit to the detriment of the hospital, and especially of the medical staff. As a member of the staff at the conjoint meeting above referred to, I proposed that the regulations for the admission of pay patients should be made much more stringent, but I was not supported by my then colleagues, either at that meeting or at a subsequent medical committee meeting. I am, Sirs, yours truly,

W. SPENCER WATSON, F.R.C.S.

Henrietta-street, Cavendish-square, W., Nov. 28th, 1894.

"THE AMOUNT OF MEMBRANE IN DIPHTHERIA AS AN ELEMENT OF PROGNOSIS."

To the Editors of THE LANCET.

SIRS,—I am glad to see the insertion of Mr. Lennox Browne's letter in THE LANCET of Dec. 1st, as I think the local signs of this disease most important, especially the appearance of the throat and the quantity of the *diphtheritic membrane* and its situation. I happened to precede Mr. Browne in the late debate, and particularly stated that I could not go with Dr. Donald Hood in the opinion he gave, and, as the result of his experience, that it is a mistake to estimate the danger of the attack or its probably fatal result by the amount of the membrane. I mentioned in my speech—and am glad to have the opportunity of recording in the pages of THE LANCET, which is so widely read by general practitioners—that I have always found that if there was any extensive true diphtheritic membrane on the fauces, and especially if it spread to the posterior nares, with much exudation from the nostrils, the gravity was greatly increased and a fatal result generally followed, and, indeed, this result by authors we have been taught to respect; *ergo*, the opinion from so able a physician as Dr. Hood that the amount of the membrane was of no consequence would be likely to tend to the under-estimation of the gravity of the case. I also called attention to the local symptoms of the diagnosis of diphtheria, and mentioned as of some value (with other signs), in determining the nature of the disease, a swelling or tenderness of the glands of the lower jaw (the submaxillary).

We can hardly over-estimate the importance of the recognition of diphtheria; every sign that leads to the correctness of diagnosis had its value, for the tubes exhibited by Dr. Abraham, and used extensively in New York for diagnosis, were even thought by experienced speakers to be of questionable or of negative value and would in no way exclude the possibility of the diphtheritic nature of the disease.

I am, Sirs, your obedient servant,

Dec. 1st, 1894. FREDERICK H. ALDERSON, M.D.

P.S.—I am able to confirm Dr. Campbell Pope's experience that one of the chief factors of diphtheritic culture is dampness of soil. I was in practice a decade previous to Dr. Pope (before the main drainage) and when diphtheria was very prevalent in Hammersmith of a far more severe type than the present epidemic, and the immunity from the disease that the author spoke of the first ten years he was in practice I attribute to the excellent main drainage and the dryness of the subsoil, which undoubtedly reduced the diphtheria mortality very considerably.

"THE POSITION OF THE THEORY OF EVOLUTION."

To the Editors of THE LANCET.

SIRS,—Newton was asked one day *why* he walked when he felt inclined to do so, and *how* his arm and his hand moved responsive to his will. He answered that he did not know. "Well, at least," pursued the inquirer, "you, who know so much about the gravitation of the planets, surely can tell us the reason for their turning in one direction rather than in the other"; but again he answered that he did not know. Those who have read Mr. Norman Lockyer's meteorite theory are aware that the known laws of gravitation will not answer every question in celestial mechanics; indeed, if I remember well, astronomers have been forced, in attempting to solve the mysteries of nebular transformation, to invoke the existence of laws of motion opposed to prevailing views of gravitation. Dr. Walter Kidd asks Professor Huxley to conciliate evolution and ethics (I see no other weighty point in his letter), and because this distinguished scientist acknowledges the

difficulties of the problem, and is guilty of the weakness of going "very near to supposing a new force in the universe other than evolution," Dr. Walker Kidd inquires triumphantly: "Is there a grain of truth in this theory?" Professor Huxley merely attempted to solve from an evolutionary point of view the problem which Zoroaster avoided under a poetic fiction—the problem which, with all his mastery of philosophy and his unrivalled skill as a dialectician, Bossuet abandoned as inexplicable, the problem which Christianity explains (so far as good and evil affect man) by the very obscure doctrine of atonement. Evolution has its metaphysics like every other system.

Dr. Campbell and Mr. Roger Williams have very ably exposed the "views of those members of the medical profession who have paid the greatest attention to the subject" in question; and Dr. Campbell is probably right in supposing that these members "will endorse the opinion of the professed biologist." Many of them will "see nothing but what is beautiful in Herbert Spencer's ethical code," and less in this code to weaken the "sanctions of morality" than in what was written "long before the theory of evolution was seriously contemplated." Has Dr. Kidd read Spinoza? "In the eyes of God each thing is what it has the means of being. There is no rebellion against him, and no resistance of his will; in truth, therefore, there neither is, nor can be, such a thing as a bad action in the common sense of the word. Actions are good or bad, not in themselves, but as compared with the nature of the agent. What we censure in men we tolerate, or even admire, in animals, and as soon as we are aware of our mistake in assigning to man a power of free volition our notion of evil as a positive thing will cease to exist." "The brains that are so marvellously forwarding medicine and surgery" are "busy" precisely because they have received the powerful stimulus of Darwin's biological teachings. Would there have been a Pasteur or a Lister without Darwin? What is it that constitutes a *primâ-facie* argument in favour of the truth of the parasitic origin of disease? The idea that man has not yet emerged from the struggle for existence against inferior forms of life; as his palæolithic ancestor fought against the sabre-toothed lion with sharpened vision that detected the tracks of his enemy, and the flint celt or pointed arrow, so modern man, subjected to the dangerous surroundings inseparable from civilised conditions of life, struggles against enemies that he detects by the microscope and overcomes by the weapons of hygiene. I hardly know where to place Mr. Samuel Laing amongst the formidable category that are expected to protest against the teachings of "transcendental specialism," but is he likely to object to the attractive accession to his theories provided for the next edition of a modern Zoroastrian by the recent discovery of antitoxin? Would Max Müller hesitate to affirm under the influence of what theory he conceived his lectures on the Science and Stratification of Language, or on the Science of Religion? Does Lord Kelvin find his faith shaken because the disproportion between his chronological estimates and the time exacted by Sir C. Lyell and Geikie for the evolution of geology is as damaging as the discrepancies in chronology between the views of Archbishop Usher and those of any modern theologian?

Similar queries might be addressed to the representatives of other sciences—to the historian, for instance; for surely the presumption that they are entering the lists against the theory of evolution is delusive? Unless, indeed, Dr. Kidd means the mere annalist, who was by turns the delight or bane of our boyish days. The true historian is a student of sociology, and the great exponent of this science tells us that "sociology is the study of evolution in its most complex form." Even where writers like Froude and Kingsley demur to Herbert Spencer's position that there is "natural causation throughout the actions of incorporated humanity," their method of treating history is in tacit agreement with this view. Finally, so far as the archæologists are concerned, I might consult our authority here on the subject, Dr. Sturge; but if he were asked whether the few missing links in his beautiful collection of implements, that illustrate the evolution of the axe from the rude palæolithic celt to the keen instrument of the modern American backwoodsman, had led him to believe any less firmly in the truth of the theory of transformism I am sure his answer would scarcely be favourable to the position assumed by Dr. Kidd.

I remain, Sirs, yours faithfully,

Nice, Dec. 1st, 1894. A. W. GILCHRIST.

"DEATH UNDER CHLOROFORM IN A DENTAL SURGERY."

To the Editors of THE LANCET.

SIRS,—Knowing nothing of the case beyond what I have read in the annotation under the above title in THE LANCET of Dec. 1st, I make no comment on this the latest fatality from chloroform in the dentist's chair, nor would I suggest that the employment of the chosen anæsthetic was not fully justified by special circumstances which may have existed; but after an experience of over a quarter of a century in hospital and private practice I do venture most emphatically to affirm that the cases of dental operation in which chloroform or ether can be considered indispensable are so rare that practically it may be said the use of these always dangerous agents in ordinary dental surgery is unjustifiable. Nitrous oxide gas is *par excellence* the dental anæsthetic. The cases in which it does not in every way suffice are highly exceptional, and much more can be done with it than seems commonly supposed. In the few instances in which a large number of teeth need to be extracted—teeth beyond the reach of conservative treatment, which nowadays is able to save so many—it is, as a rule, not necessary to remove all at one sitting. There is, moreover, no difficulty in giving gas on one occasion repeatedly, or at least two or three times in rapid succession. In many cases, a few teeth or stumps having been drawn and the effect of the anæsthetic passing off, the inhaler can be reapplied, anæsthesia again induced, and more extractions can be performed without the patient regaining consciousness. In cases where the jaws are closed in consequence of inflammation extending from around molars or "impacted" wisdom teeth, and gas anæsthesia would not afford time to force the jaws apart and remove the offending teeth, the operation may be divided into two parts. The mouth may be first opened by the screw gag, and then the gas may be given again for the extraction. In most cases the second administration may be begun before the effect of the first has entirely passed off, and the patient may be as effectually spared both terror and pain as with any other agent. In the very few dental cases where chloroform is really called for it ought never to be given in a chair. The patient should always be recumbent, undressed, and prepared in the way usual when surgical operations are contemplated. The patient may recline on an ordinary couch, with the shoulders raised on pillows and the head thrown slightly back, the dentist standing either on the patient's right or behind the head. In one or other of these positions the operator can conveniently deal with any tooth in either jaw.

I remain, Sirs, your obedient servant,

Cavendish-square, Dec. 1st, 1894. HENRY SEWILL.

THE ANTITOXIN TREATMENT OF DIPHTHERIA.

To the Editors of THE LANCET.

SIRS,—With many others I anxiously hoped that in antitoxin we had found, if not an antidote to diphtheria, a useful adjuvant to the treatment of that disease. Personally, I have been disappointed, and I give below the results of my experience with "Aronson's" preparation. My first case this autumn was that of a boy aged eight years who showed membrane covering both tonsils, uvula, and soft palate. The case was a severe one, but fortunately confined to the faucial region. Treated with iron, sulphurous acid spray, and good feeding the initial stage was passed through. Paralysis set in, but eventually recovery took place, and the boy is now well. A month afterwards his cousin, aged seven years, living in another neighbourhood, was taken ill with croupy cough; his tonsils showed patches of membrane, which had obviously invaded the larynx. Twenty minims of antitoxin were injected, with marked temporary recession of fever and acute symptoms; the respiration being impeded tracheotomy was performed, but the child, a very strong one, died of cardiac failure four days after the injection. In this case the rapid shedding of membrane was a grave source of danger, as the windpipe was constantly blocked, and was obliged to be cleared with laryngeal forceps. The patient had begun to recover from the membranous stage when he suddenly died. My third case, which I only mention because it infected the fourth, occurred in the Isle of Man. The true nature of the disease was, I think, overlooked, but I found, when first

called in after his return, loss of reflexes with paralysis of accommodation and urine loaded with albumen. This boy, aged nine years, died of paralysis of the chest walls nine weeks from the onset of the disease. Three weeks after the death of the third case a second child aged four years, very strong and healthy, was infected, and on the first appearance of the typical membrane on the tonsils a full dose of fifteen minims of antitoxin was injected, and a second dose twenty-four hours later. This case persistently went wrong from the commencement. The throat was carefully sprayed and the membrane cleared, but the child gradually grew more and more drowsy until he died five days from the inception of the disease. The poison was evidently intense and crushed the rallying powers so that no defence could be made, the antitoxin being powerless for good except in so far as keeping the temperature below 100° F.

Such are the plain facts of these four cases, all in the upper classes of society, therefore under similar conditions, surrounded with every care, skilled nursing, and modern appliances. The first recovered without antitoxin, the second died with antitoxin, the third died from paralysis without antitoxin, and the fourth in the early stage with antitoxin. I am, Sirs, faithfully yours,

Bowdon, Dec. 3rd, 1894. P. H. MULES.

LUNACY IN HOSPITALS.

To the Editors of THE LANCET.

SIRS,—Wide publicity has been given to the report of an inquest on a patient (John Round) who died subsequent to removal from this hospital. No notice of his death was communicated to the hospital authorities, who were not, therefore, represented at the inquest. As there appears to have been considerable misapprehension of the facts of the case, giving rise to groundless criticisms, I am instructed by my board to beg the favour of your insertion of the enclosed statement.—I am, Sirs, yours faithfully,

E. W. TAYLOR,

Dec. 5th, 1894. Secretary to the London Temperance Hospital.

[ENCLOSURE.]

With reference to the evidence given at the inquest on John Round at the St. Pancras Coroner's Court on Nov. 30th the Board of Management of the London Temperance Hospital desire to record the following facts. The patient applied at and was admitted into the hospital on Nov. 5th suffering from ulcers of the leg. He had also a festered finger which might have arisen from a cut from his lathe, to which cause, however, neither he nor his wife attributed his illness. The case-notes show that he was in the hospital ten days, during which time the ulcers began to heal; he had no symptoms of any blood poisoning or fever, his temperature, according to the chart, being hardly above normal; his organs were apparently healthy, but he was somewhat emaciated and of a morose disposition. On the evening of Nov. 15th he became melancholic, refused his food, would not answer when spoken to, and was violent and noisy at night. Accordingly on Nov. 16th his wife was sent for, informed of his mental condition, and asked whether she would take him home or prefer that the relieving officer of the parish should be communicated with. She took some time to decide, but finally made up her mind that the latter course should be adopted. The patient was therefore removed under the care of the relieving officer. In the opinion of five medical men who saw the case it was one of acute melancholia arising in a debilitated subject, not one of delirium due to accidental cause or blood poisoning. Cases of the latter class are treated in the separate wards provided within the hospital for such purpose. The only alternatives open for the proper care and treatment of such a case were duly explained to the patient's wife.

THE PREVENTION OF SMALL-POX.

To the Editors of THE LANCET.

SIRS,—In 1867 I was asked to visit a man aged twenty-two years. He was suffering from small-pox, and he died in about ten days. He was a strong man, a sailor, and on his return from a voyage to Lisbon he had contracted the disease, then prevalent in Whitechapel. His father had refused to have any of his eleven children vaccinated till the beginning of 1867, when the oldest son went to Sunderland, was attacked with small-pox, and the father was sent for to see him die. The father returned home and had all the other children vaccinated except my patient, who was then on the way to Lisbon. The house consisted of four rooms, two above the others; no passage. The odour was so intolerable that I lighted a cigar before entering. Fancy a man and his wife, with nine children, and my small-pox patient huddled together. It was a solitary house in the country, so isolation was perfect, as no one but myself went near. It was surely passing strange, but it is absolutely true, that no other case occurred in that house. The fact that the man, wife, and nine children had all been vaccinated a few weeks before would be a matter of small import in these virulent (!) anti-vaccination days.

I am, Sirs, yours faithfully,

W. J. HODGSON,

Dec. 5th, 1894. Public Vaccinator for the Borough of Rochdale.

BACTERIA IN BRITISH BAKED BREADS.

To the Editors of THE LANCET.

SIRS,—Permit me to supplement the questions as to whether baking sterilises bread, raised in a paper by Drs. Waldo and Walsh,[1] and by Surgeon-Major Rennie of Meerut, India, by alluding to previous French publications on this subject. 1. In June, 1893, Dr. Henri Luys published his classical contribution on the "Action of Heat on Foods," wherein he stated that except for special breads the temperature of the crumb of bread never exceeded 70°C. (158° F.), a heat insufficient to destroy various microbes, above all the oidium aurantiacum. Dr. Henri Luys states that the crumb of many French breads was unsuited for some dyspeptics. 2. In February, 1894, acting under the orders of the French War Office, Drs. Balland and Masson published their famous report as to the results of their research into the temperatures in French military made bread and biscuits. They found that the internal temperature of French army bread ranged between 212° and 216° F., whilst Paris baked biscuits reached 236°. These eminent expert chemists considered that with the acidity of the dough in each case these breads and biscuits were sterilised by the heat employed. Hence, owing to their using a higher temperature, French bread is much more healthy, tasty, and soluble than the damp, doughy, indigestible abominations turned out by our British bakeries, which may possibly harbour undestroyed pathogenic microbes and their spores. 3. Early in 1894 Dr. A. Ballard published his magnificent monograph of experimental research on corn, flour, and bread, which ought to be forthwith translated into all modern European languages, as it contains an encyclopædia of all up-to-date information on bread-making, which has apparently hitherto escaped the attention of English scientists.

Adding ignominious insult to injury, our so-called little breakfast "loaves" are curiously termed "French rolls," which, however, I have never seen anywhere abroad in my frequent travels and long residence in various countries between the North Cape and Naples. The inferiority of our bread has long been acknowledged by our home practice of removing its crust and cutting the crumb into thin small slices for re-baking, to be forthwith sent hot to table and labeled "toast."

Using a local baker's dough and yeast at temperatures of 85° to 88° F., with my cook I baked three 2-lb. loaves of bread for one hour and thirty-five minutes in a gas stove at about 350°. In each of the three loaves I placed within the centre of the yeast and dough two accurate maximum thermometers, specially made for me by Messrs. J. Hicks and Co., whose "climax" or glass-covered scale prevents the figures being rubbed off in various food experiments. 1. In the gas oven I rapidly withdrew one of the maximum thermometers marking 192°. I then closed the door, turned off the gas, and, after cooling five hours a half *in situ*, the second thermometer recorded 210°, or a rise of 18° by the continuation of cooking during cooling, which in large joints of meat will often exceed 30° in the centre of such animal food if the joint cools without being cut whilst hot. This important practical point has hitherto been overlooked and ignored by investigators. 2. Whilst the second loaf was baking it accidentally fell over sideways and became lop-sided. In quickly withdrawing in the oven *in situ* the first maximum thermometer marked 203°. I placed this loaf in a specially constructed insulator made of alternate layers of air, wood, long heated or sterilised glue, soot, brown paper, and metal, standing on wooden legs on glass stands, or circular cups as used for pianos. The loaf remained for five hours and a half in this insulator at temperatures ranging from 61° to 70°, when its maximum thermometer marked 210°, or a rise of only 7° by the continuation of cooking during cooling. 3. From the third loaf, on rapidly withdrawing the first maximum thermometer *in situ* in the gas oven it indicated a temperature of 204°. This loaf was allowed for five hours and a half to cool in the kitchen at temperatures

[1] THE LANCET, Oct. 20th, 1894.

varying from 62° to 78°, when its second maximum thermometer marked 218° for the interior of the crumb, or a rise of 14° by the continuation of cooking during cooling.

The 2-lb. "loaves" of dough and yeast by baking, and by subsequent twenty-three hours' drying and cooling, weighed each 1 lb. 11 oz., or a loss of 5 oz. out of 32 oz., which is nearly 15 per cent. loss.

I am, Sirs, yours truly,

J. LAWRENCE HAMILTON, M.R.C.S.

Brighton, Oct. 20th, 1894.

"INQUESTS WITHOUT MEDICAL WITNESSES."

To the Editors of THE LANCET.

SIRS,—In THE LANCET of Nov. 24th Mr. Thorpe tells us how inquests are conducted in his part of the country. It may not be uninteresting to the profession to hear how they are conducted in other parts. I have been in practice in an East Lancashire borough of nearly 20,000 inhabitants for over twenty-two years, and during that time I have been called to give evidence before the coroner twice. I think that I am fairly within the mark when I say that during the whole of that time not more than six fees have been paid to the medical men of this town for giving evidence at the coroner's court. I did at one time try the experiment of refusing a certificate in suspicious cases, but I found the result so disappointing that I have long since given it up. If the coroner did hold an inquest at all he never called medical evidence or ordered a post-mortem examination. I have one particular case in my mind at this moment. I was called in to see a young woman who was in a dying condition from peritonitis. She died within two hours of my seeing her. I refused to give a certificate on the grounds that the case was suspicious. She had been attended by a druggist. An inquest was held, but I was not called. The coroner accepted hearsay evidence as to what I had said when I first saw the patient, and directed the jury to find a verdict that the deceased died from peritonitis. I need hardly say that what the coroner accepted as my statement to the patient's friends I never said at all. The main thing that I accomplished by this business was to make enemies of a good large family connexion without doing any good to anybody.

This is a fair sample of the manner in which inquests are conducted in this part of the county. An inquest without either medical evidence or a post-mortem examination is a complete farce. Medical men are continually coming across suspicious cases, more particularly infants and young children, where the patient is heavily insured, and the friends—save the mark!—hardly take pains to conceal the fact that they should be glad to see them die. I do not altogether blame the coroners for this state of matters in Lancashire. Some years since the Lancashire justices, in quarter session assembled, passed a resolution that the coroners be requested to do with as little medical evidence as possible, or a resolution to that effect. I do not know why the coroners should have obeyed that resolution, but I suppose they knew in what way the magistrates could make their mandate obeyed. At any rate, they have obeyed it with a vengeance.

This is a matter that should be brought before the county councils and the candidates for the honour of representing us on the county councils. If every medical man would instruct the county councillor nearest to him we should soon have an alteration in the practice of coroners.

I am, Sirs, your truly,

East Lancashire, Nov. 27th, 1894. HOPE.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

The Assizes: Shocking Charge against a Husband.

MR. JUSTICE WILLS finished yesterday the criminal business of the assizes, which he commenced on Nov. 15th. The calendar was very heavy, comprising many grave charges, though fortunately not one ending with the capital sentence. Among them was one possessing several points of painful medico-legal interest. The prisoner, Joseph Buckley, was charged with the murder of his wife at Westhoughton, the following being the facts proved in evidence. Early on the morning of Oct. 30th the deceased woman ran from her own house in her night-clothes to that of a Mrs. Latham, a distance of 200 yards, to escape, as she said, a renewal of her husband's violence. She was far advanced in pregnancy, her husband suspecting her condition to be due to some other man. On her arrival at the house she fell exhausted upon the floor, and it was evident that she was in a very critical condition. Mr. L. Cooke of Aspull was sent for, who, seeing at once the dangerous state in which the woman was, sent for Dr. Doman of Westhoughton, who arrived at 3 A.M. On examining her he found that there was slight hæmorrhage from the vulva, the inside of the vagina had blood trickling down, and it contained a few dark-coloured clots; the patient complained of great pain in the abdomen and was suffering from shock to the system. Repeated examinations showed that she was not in labour, though she was expecting her confinement in a week; the os uteri was patulous though not dilated, and the membranes were intact. As it was imperative that she should be removed to a place where she could be properly attended to, and as the workhouse was six miles away, she was removed carefully in a conveyance to her brother's house, distant less than two miles, Dr. Doman accompanying her and seeing to her being made comfortable in bed. During that day he saw her five times; the hæmorrhage had ceased, but she was very weak, suffering from shock and collapse; there were no signs of labour. Early next day she was still very weak, but rallied slightly in the afternoon. Towards evening, she having again lapsed into a low condition, Mr. Tyndall of Westhoughton was called in consultation, and as she was evidently dying her depositions were taken by a local magistrate, she having been partially revived by a hypodermic injection of ether and brandy. She stated that her husband had kicked her on the privates, knocked her on the bed, made her get up and kicked her, put his hand inside her three or four times, and struck her face. To the question, "Did he want to bring on confinement?" she answered "Yes." In fear of death she adhered to the truth of her statement. He actually put his hand in her body five or six times. An effort was made by Dr. Doman and Mr. Tyndall to deliver her so as to save the life of the unborn child, but the patient died before this could be effected. At the post-mortem examination it was found that there were no external marks of violence about the genital organs, but the right upper eyelid was blackened by ecchymosis. The outer surface of the uterus showed very distinct signs of acute inflammation; the intestines formed an arch over the uterus, and were thus supported. A female fœtus of complete gestation was found, presenting naturally; the placenta was situated on the anterior uterine wall. Interiorly the uterus showed the same signs of inflammation as externally; the os was slightly dilated and its margins presented a sloughy and uneven condition. The upper part of the posterior vaginal wall at its junction with the cervix uteri was ruptured, the aperture being sufficiently large to admit a man's hand or fist, and communicating directly with the general abdominal cavity. In the opinion of the three medical men present—Messrs. Cooke and Markland and Dr. Doman—the rupture was caused by the introduction of a foreign body with appreciable force. The peritoneal cavity contained a quantity of serous fluid; there was evidence of inflammation of the bowels situated in the lower part of the abdominal cavity. The kidneys, liver, stomach, and remaining portion of the intestines were healthy, as was also the brain. The lungs and heart were healthy; there were no pleuritic adhesions; the right heart contained a large clot, the left side being empty. An examination of the fœtus led to the conclusion that its death took place before its mother's. The cause of death was metritis and slight peritonitis caused by the rupture, with hæmorrhage and shock to the system. Mr. Justice Wills told the jury that if the prisoner did what he was alleged to have done with the intention of procuring the woman's delivery he was guilty of murder; if the woman's death was due to his violence (apart from any such intent) it was manslaughter. The jury adopted this latter view, and the prisoner was sentenced to fifteen years' penal servitude.

Small-pox in Liverpool.

Thanks to the vigorous measures adopted by Dr. Hope, the medical officer of health of the city, small-pox has made no headway in our town. With reference to the outbreak on board the reformatory ship *Clarence*, the prompt measures of revaccination, isolation of the sick, and disinfection have proved effectual, and no further cases of

sickness on board have been reported since Nov. 26th. At the hospital at New Ferry two cases of suspicious illness amongst isolated boys have proved to be mild small-pox. All the cases in hospital are doing well. The total number of cases at Park Hill Hospital has fallen from eighty-one on Nov. 22nd to seventy-one on Nov. 29th, and further to sixty-two at present.

Dec. 4th.

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

Hospital Saturday Convalescent Homes.

AN interesting *réunion* (the third) of former inmates of the convalescent homes at Tyn-y-Coed and Marle Hall was lately held at the town hall. The guests numbered nearly 2000. Alderman Cook, the president, addressed the members, and gave some details of the good results of the homes, results which had more than fulfilled the expectation of the founders of the movement. A presentation of a writing-desk was made to Dr. Dalton of Llandudno, the honorary medical officer to the homes, the tablet bearing the simple but expressive inscription, "By his Hospital Saturday friends." A concert followed; limelight views were exhibited and the company separated after a cordial and hearty meeting.

The Royal Commission on the Health of Brassworkers.

Some parts of the brass-working trade, no doubt, are unhealthy, probably from the admixture of zinc in the metal; but more injury to health is probably caused by defects as regards cleanliness, ventilation, and other safeguards. It is satisfactory to know that the Commission have the advantage of a medical expert in the person of Dr. R. M. Simon, one of the physicians to the General Hospital in this city. The masters and men, too, are represented in adequate proportion, so that the inquiry into this important industry will doubtless be thorough and complete.

Moral Epidemics.

Now and again the authorities of Mason College are troubled with moral outbreaks affecting the property of the College and those engaged in it. A lamentable instance occurred a short time since in which a theft of books was traced to a student. A conviction followed, and a fine of 40*s.*, with costs, was imposed by the stipendiary. It is difficult to appraise the condition of mind in the individuals who perpetrate these petty thefts, or to estimate the pain and suffering which such moral degradation brings upon their parents and friends. It is obvious that reflection is not present at any stage in such transactions, and that impulse probably rules the motive. In justice to the authorities of the College it may be said that every means are taken to protect the property connected with it, and that they prosecuted only with great reluctance as a public duty.

British Medical Association.

At the opening meeting of the Birmingham Branch of the British Medical Association an address was given by Mr. H. L. Browne on the Development of the Germ Theory. After reviewing the various theories relating to the subject Mr. Browne expresses his opinion that it is in the field of preventive medicine in which the greatest good must be expected. In connexion with the same subject a paper was read at the first meeting entitled, "A Criticism of the Germ Theory of Disease based on the Baconian Method." This has been reprinted, and has given rise to much discussion, explanation, and comment. At present it appears that the majority of the members at the meeting took an adverse view to the opinions and statements expressed in the paper.

Dec. 4th.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

The Proposed New Infirmary Building at Newcastle.

AT a meeting of the joint committees of the stewards' committee of the Freemen and of the Town Moor Management Committee the prevailing feeling on the part of the Freemen was that the site should be granted on terms to be fixed by the council afterwards. A majority, however, of the members of the Town Moor Management Committee present were against the site being granted at this portion of the Leazes, and against any portion of the Moor being built upon, and so the matter stands.

A Pocket Bomb.

A young miner of Hartley died yesterday at the Newcastle Infirmary. It is supposed that on Nov. 12th he brought some gunpowder out of the mine in a gaspipe, both ends of which were stoppered with cottonwool. One end of the pipe had been sticking out of his pocket, and while trimming his lamp the wool took fire, with the result that the gunpowder exploded. His thigh was terribly lacerated, and in spite of the efforts made at the institution just named, whither he was at once conveyed, he succumbed to his injuries.

Border Centenarians.

There has just passed away at Lumsden, about five miles from the Carter Fell, on the English side of the Border, Mrs. Ord, who had reached the remarkable age of 103 years. During her long life she was exceptionally healthy, and until recently was able to go about and attend to her household duties. She was a woman of considerable intelligence, and retained her mental faculties nearly unimpaired almost to the last. She was born in September, 1791, and was, therefore, in her 104th year.

An animated discussion took place at the last meeting of the Tyne sanitary authorities on Dr. Armstrong's paper on the Hygiene of Merchant Ships.

Newcastle-on-Tyne, Dec. 5th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Edinburgh Royal Infirmary.

AT the meeting of the managers of the Edinburgh Royal Infirmary last week it was pointed out with satisfaction that the expenditure for 1894 was only £100 more than in 1892, although there were sixty seven more beds. The decrease was attributed to the manner in which the Superintendent Surgeon-General Lithgow had carried out the wishes of the board. An offer from the postal band of Edinburgh and Leith to give a Sunday evening concert for the benefit of the infirmary was considered, and it was decided that the board could not give its countenance to the proposal as Sunday evening concerts were disapproved of by many people and would do more harm than good to the infirmary. It was suggested that some other proposal might be submitted.

The Spread of Small-pox in Edinburgh.

Owing to the number of cases of small-pox in Edinburgh it has been necessary not only to occupy the temporary hospital in the Queen's Park but also to have it enlarged. Early last week it was reported as full, and during the past week twenty-nine fresh cases have been reported. Eight deaths from small-pox occurred during the week. The medical officer reported that no case had occurred in persons who had been vaccinated within the last seven years. One interesting case was referred to: a man about eighty years of age, who was a strong anti-vaccinationist, had died from a virulent form of the disease, and his wife died an hour afterwards from a similarly severe attack.

Edinburgh Health Statistics for October.

During the month of October 381 cases of infectious disease were intimated; of these, 35 were cases of small-pox. There were 263 patients admitted to the City Hospital during the month, and of these 15 had died—3 from typhoid fever, 5 from diphtheria, 3 from small-pox, and 3 from scarlet fever. The death-rate of the city for the month was at the rate of 18·13 per 1000. Diseases of a zymotic nature caused 6·60 per cent. of the total mortality.

The Pharmaceutical Society in Edinburgh.

The North of Scotland Branch of the Pharmaceutical Society of Great Britain have had to extend their buildings in Edinburgh. This has been necessary owing to changes in the examinations and the number of students presenting themselves for examination having increased. The addition has been made to their buildings in York-place, and include a hall, dispensing room, and laboratory, with lavatory and cloak-room accommodation for the students. To celebrate the opening of these premises a dinner was given to the society, which was attended by many leading physicians

and pharmacists. The toast of the evening was proposed by Sir Thomas Grainger Stewart. Commenting upon the pharmacists' examinations, he said that they, up to a certain point, were very useful, but they could easily be pushed too far. An examination which was reasonable was not one which rejected two-thirds of the educated candidates who presented themselves; it should be sufficient to protect the public, but not be unduly severe or unfair to those who had to submit themselves to it.

Glasgow Western Infirmary.

From the annual report of this infirmary just published I learn that during the hospital year now ended 4175 patients were treated in the wards and 13,793 in the dispensary, a total of 17,973. The number of deaths was 325, or 8·57 of all cases treated to a termination; deducting 85 cases which were of such a hopeless nature on admission that they died within forty-eight hours, the death-rate becomes 6·48 per cent. The average period of residence was 34·15 days. The cost of each fully occupied bed was £54 17*s.* 9¾*d.*; the average cost per patient was £5 2*s.* 8¾*d.* As regards funds, the ordinary income fell short of the ordinary expenditure by £4967, and to meet this deficit and to cover extraordinary outlay all the extraordinary income for the year has been appropriated, and about £9000 taken from capital account. There is still a large amount of extraordinary expenditure to face, extensive works being in progress to bring the infirmary up to the level of modern requirements. These works consist of a new laundry, new machinery for heating, ventilating, &c., and a large and complete pathological building, the estimates for all these amounting to £30,000; in addition a new dispensary and new operating rooms are urgently required, the cost of which would be about £10,000. To complete these, with fittings and furnishings, will require a sum of about £50,000; during the past year £12,500 have been paid to contractors towards this account, leaving a sum of about £40,000, for which the directors make a confident appeal to the wealthy and philanthropic citizens of Glasgow.

Resignation of the Casualty Surgeon to the Central Police District, Glasgow.

Dr. T. K. Dalziel, in resigning the above post, mentions that in nine years' service he had treated over 20,000 persons, including 800 cases of sudden death, and had instructed 1200 policemen in ambulance work—not a bad record.

Dec. 4th.

IRELAND.

(FROM OUR OWN CORRESPONDENT.)

Benefit Societies and Cork Medical Men.

AN agitation has occurred of late between the medical practitioners residing in Cork and the various clubs and benefit societies in that city as to the remuneration of their medical officers. The payment of the medical officers of these societies has long been considered inadequate, and in consequence the practitioners have formulated a set of rules as to the proposed remuneration of medical gentlemen connected with them and other matters in relation thereto, of which I give the following important specimen:—1. Scale of remuneration to be in proportion to a member's income, and when this cannot be ascertained to the valuation of dwelling-house. 2. Minimum yearly fee 7*s.* 6*d.* if member's income is under £100, or valuation of dwelling-house under £7 10*s.* per year; minimum yearly fee 15*s.* if member's annual income is under £200 a year, or valuation of dwelling-house under £15. No one with an income of £200 per annum to be admitted. This scale is for medical attendance only. 3. Maximum distance for attendance two miles from the General Post Office. 4. No medical man to take an appointment from which another retires in consequence of his society or club not complying with these rules. 5. Only relatives entirely dependent on the members to be attended. 6. That personal canvassing for clubs and benefit associations be prohibited in future. 7. That any member of the medical profession who wilfully violates these rules be excluded from professional intercourse. On receipt of these rules, which are to come into force at the New Year, a conference of delegates from the various friendly and benefit societies in the city was held, with a view to concerted action in resisting the attempt of the medical practitioners to enforce a new set of rules for the government of club-contract, benefit society, or association practice in the city of Cork. The delegates protested against and questioned the right of medical men to make laws and rules for the societies. Resolutions were adopted declining to comply with the rules, giving the medical men fourteen days to consider whether they would withdraw them or not. The usual remuneration to medical officers of benefit societies and clubs is altogether inadequate, and it is satisfactory to learn that the Cork medical men are determined to stand out for higher payment. If all are united the societies must sooner or later give in to their demands.

Dec. 4th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

The Progress of the Paris Faculty.

AT the last meeting of the Council of the Académie de Paris Professor Brouardel, in his capacity of Dean, furnished some interesting information concerning the Faculty of Medicine. The total number of students inscribed on the books is 5144. Of these, 1002 are foreigners, 833 being men and 169 women. The ambition to figure as medical practitioners does not appear to be rife amongst French *citoyennes*, for only 26 out of these 169 female students are of French nationality. The majority possess unpronounceable Muscovite patronymics. Dr. Brouardel further stated that the number of students on the rolls had doubled within the last eight years. Should this numerical progress continue the Faculty buildings not yet completed will be inadequate for the accommodation of this small army of aspirants, and the Chambers must be applied to for a yet greater extension of the premises. The Dean pointed out, moreover, that the vertiginous advances made in the art of medicine required a higher standard of education than heretofore in the men "turned out" by the Faculty, and he said that the attainment of this standard entailed the formation of numerous small classes, both conditions calling for extra space. M. Brouardel touched upon the vexed question of the insufficiency of the supply of young medical men to country districts, Paris being glutted with them. He urged the communal authorities to grant as an inducement a minimum of 1000 francs annually. Thanks to the pursuance of this policy by the Préfect of the Seine-Inférieure, forty-five medical men had settled in that department last year. For communes not wealthy enough to make this grant, M. Brouardel suggested a return to the practice in vogue during the last century of giving a house rent free to the practitioner.

The late Dr. John Chapman.

A well-known figure in the British colony has disappeared in the person of Dr. John Chapman. He will be best known to his *confrères* across the Channel in connexion with his enthusiastic advocacy of the therapeutic applications of heat and cold to the spine in a variety of diseases—menorrhagia, amenorrhœa, defective circulation, nystagmus, pneumonia, diarrhœa, cholera, &c. His enthusiasm for this practical deduction from his vaso-motor theory of disease carried him so far, indeed, that he had come to regard it as an almost universal panacea for disease, and Dr. Chapman's spinal ice and hot-water bags became a household word amongst his *clientèle*. The last time I was in the deceased gentleman's company in my literary capacity was on the occasion of a visit he and I made to the Necker Hospital during the last cholera epidemic—a visit duly chronicled in your columns. He was anxious that I should personally appreciate the beneficial effects of the treatment of cholera by the spinal ice-bag. I remember that almost all the sufferers acknowledged that the wearing of the bag certainly contributed to the relief of algidity and made them more comfortable ("Ca m'a soulagé, monsieur"). Although most practitioners will not share Dr. Chapman's convictions with regard to the value of his method, it must be confessed that his persistent advocacy of a very powerful means of influencing the circulation has been of some service to the profession. His colleagues here will miss the kindly presence of this "erratic genius," as he was once designated to me by a London physician. In him the Continental Anglo-American Medicine Society, the executive committee of which he was for some years a member, loses a good

friend. I am glad of this opportunity of expressing to his respected widow the united sense of the sorrow of all his British fellow practitioners in Paris at his death. The deceased was buried at Highgate Cemetery on Saturday last.

The Internal Secretion of Glands.

MM. Phisalix and Bertrand, whose researches on the venom of snakes have been frequently referred to by me in these columns, had previously shown that the blood of these animals contained toxic principles analogous to that secreted by the poison gland. They now inform us[1] that the ablation of the poison glands in forty-six vipers from the Jura, the Puy-de-Dôme, La Vendée, and the neighbourhood of Paris, determined a distinct diminution of the toxicity of the blood (inoculated into fifty-eight guinea-pigs). It is evident that a part at least of the poison present in the blood is derived from the reabsorbed secretion of the special poison glands. The internal secretion of glands thus receives a fresh confirmation.

Dec. 4th.

CANADA.

(FROM OUR OWN CORRESPONDENT.)

The Medical Council Elections.

THE election returns show that there will be a considerable change in the *personnel* of the new council, at least so far as the elective members are concerned. This, no doubt, is mainly due to the fact that for some time past an active opposition has been carried on against the council by the Medical Defence Association, the two principal officers of which have been elected with large majorities—viz., Dr. Bangster of Port Perry, and Dr. Armour, St. Catharine's, the latter candidate defeating the present president of the council, Dr. Philip, Brantford. In one division the election was decided by the vote of the returning officer, but proceedings have already been taken to declare it void. Besides the seventeen territorial members there are upon the Council nine collegiate, and that particular school of medicine called homœopaths have the large number of five, a much greater relative proportion than is granted to those of the regular school. Certainly, if new blood is of benefit, I should have some good work to report as having been done in the near future by the Council of the College of Physicians and Surgeons of Ontario.

Small-pox in Ontario.

At present there are only a few cases of this disease to be found in the district close to the American city of Detroit. Diphtheria is, however, reported from several portions of the province, being more epidemic in character than for some years past.

Grand Juries upon Indecent Assaults.

There have been chronicled during the past year an increased number of cases of criminal assaults upon young girls, one during the past month being most brutal in character, the criminal assault being followed by the mutilation and death of the victim. As a result of these cases several of the grand juries have recommended at the present sessions of High Court that a surgical operation be added to the penalties for assaults upon girls of tender years. It would seem from this that imprisonment and the lash are not sufficient deterrents in these cases.

Systematic Investigation of Bacteria in Water.

The subcommittee of the Committee on Water-supply appointed at the recent meeting in Montreal of the American Public Health Association to conduct a systematic investigation of the species of bacteria in water throughout the American continent has already commenced work by issuing a circular letter to bacteriologists asking for their coöperation and suggestions as to the adoption of some definite systematic scheme for future research. Replies are to be sent to Dr. Adam, Professor of Pathology, McGill University, Montreal.

Dr. P. H. Bryce on Diphtheria.

A most interesting paper, presented by the Secretary of the Provincial Board of Health of Ontario at the recent meeting of the American Public Health Association on Practical Difficulties of Medical Health Officers and Physicians in dealing with Suspected Cases of Diphtheria contained the following conclusions: (1) That within twenty-four hours in the ward annexe of a hospital a scarlatinal sore-throat with streptococcus can be differentiated, and so prevented from exposure to the true disease in the diphtheria ward; (2) that, similarly, cases where simple cocci or diplococci are present may be kept from exposure to true diphtheria in the general hospital wards; (3) that physicians will be able to arrive at more intelligent conclusions as regards the duration of a case and its prognosis than hitherto has been possible; (4) that an intelligent differentiation of cases suitable for treatment with the antitoxin against the Löffler bacillus has thereby become possible; (5) that the probable duration of infectiousness of any case can in some degree be determined by the form of microbe present in the membrane. And, further, Dr. Bryce finds that these bacteriological results at once bring into prominence the difficulties which a medical health officer encounters in dealing with cases of sore-throat—namely: (1) that the physician being by these recent investigations made aware that at least 25 per cent. of diphtheria cases are not caused by the Löffler bacillus—or, as some would say, are not diphtheria—will naturally hesitate to call a disease probably non-fatal by a name placing it under the ban of the Health Act; (2) that physicians, endeavouring, as has sometimes been the case, in the supposed interest of their clients, will conveniently shield themselves behind the assertion that they could not tell, or anyone else, whether the disease is diphtheria or not; (3) that, supposing the medical officer of health on investigation finds the Löffler bacillus is not present, he at once is in doubt as to whether the public interests demand isolation of the patients, or, even if he thinks they do, whether he has legal authority to isolate what is not diphtheria; (4) that even though he isolates such cases as he does true diphtheria, can he maintain isolation for the length of time—say, four weeks—fixed by the best authorities as necessary for the disease? (5) that assuming that he can differentiate between cases, can he, with the known serious nature of many cases in which the Löffler bacillus is not present, afford to treat these as non-infectious when, as a matter of fact, they must have been caused by germs carried to the respiratory passage from the air or other medium in the same manner as the Löffler bacillus?

[1] Académie des Sciences, Nov. 26th, 1894.

AUSTRALIA.

(FROM OUR OWN CORRESPONDENT.)

Veterinary Inspection of Cattle.

THE Board of Public Health of Victoria has decided that there shall be skilled veterinary inspection of all dairy cattle at frequent intervals, and of all animals slaughtered for human consumption. The Board also has approved of a Bill to secure veterinary inspection of stock in general, with a view to checking epizootic disease. At present stock inspectors are appointed by the Government, but they are not veterinarians. The following is an instance of the need for reform. A valuable stud bull was admitted to the Melbourne Veterinary Hospital with enlargement of the superior maxilla, loss of condition, and certain signs of intra thoracic disease, and the Stock Department had ordered the animal's destruction as it was tuberculous. At the hospital tuberculin was injected; no reaction, local or general, followed. The jaw was operated on and found to be affected with actinomycosis, which was removed, and the animal got perfectly well.

Prevention of Lead Poisoning among Miners.

New regulations have been issued in New South Wales in regard to lead mining. Among other things it is provided that the mine manager must keep a record of the name, age, branch of occupation, and length of service of every workman laid up by "leading." A proper supply of good drinking water is to be kept easily available and stored with special care to prevent contamination by lead dust. Arrangements must also be made for sprinkling the ore with water to keep down the dust. Baths for the men, both plunge and shower, are to be provided, and the men must change their clothes both on going into and coming out of the mine. No person is to work at the repair of any flues, or at the tapping of flues, unless provided with a respirator to arrest the dust, and every precaution is to be taken to prevent flue dust from escaping from the chimney stacks.

Compulsory Notification of Disease in Queensland.

The Central Board of Health in Queensland has decided to

draft regulations for the compulsory notification of disease and to insist on the appointment of health officers by the local authorities.

Medical Interviews in the Press.

The leading article in THE LANCET of Sept. 8th on the subject of press interviews with medical men has given great satisfaction to the members of the profession in Melbourne, who view with alarm the increase of this abuse, which nevertheless continues. Quite recently the *Melbourne Evening Herald* had several columns describing an interview with a patient of the same oculist "of almost world-wide fame" whose name has previously figured so prominently in its pages, and who in this instance was stated to have restored the patient's sight in a manner little short of miraculous. The *Herald* has thought it worth while to attempt to justify its action, and recently devoted a leading article to ridiculing the views of THE LANCET and the *Australian Medical Journal*, and to posing as a public benefactor in making known the existence of such wonderful skill in the interests of poor suffering humanity.

Obituary.

WILLIAM BELL HUNTER, M.D., C.M. GLASG.

A LARGE circle of friends of Dr. William Bell Hunter has sustained a loss that they will feel greatly, which occurred on the 2nd inst. at Matlock after a few weeks' illness. He studied medicine at Glasgow University and took the M.D. degree in 1866, after which he held resident appointments in various hospitals. He was for a considerable time assistant medical officer to the town's Hospital and City Parish Lunatic Asylum, and subsequently house surgeon in the Greenock Infirmary. He was also resident physician and medical superintendent of the City Parish Fever Hospital, a temporary building for cases of typhus fever altogether distinct from the City of Glasgow Fever Hospital. Several years before graduation he became convinced of the efficacy of hydropathic methods, and at the same period was a strict total abstainer as well as in some degree a vegetarian. Ultimately he left Glasgow to become resident physician to the Cluny Hill hydropathic establishment at Forres. Subsequently he was appointed physician to Smedley's Institute at Matlock, another well-known hydropathic establishment, to which he devoted his energies for many years. Dr. Hunter wrote the article "Hydropathy" in the Encyclopædia Britannica. In December, 1871, he contributed to THE LANCET a letter on the Treatment of Pyrexia by Cold. He also brought out two or three separate treatises relating to his special subject.

WE are asked to state that no more tickets can be issued for the special concert and distribution of prizes of the Volunteer Ambulance School of Instruction by Major-General Lord Methuen, C.B., C.M.G., commanding the Home District, on Saturday, Dec. 8th, at Crosby Hall. The applications received by the honorary secretaries have been too numerous to reply to individually.

ALABASTER AND OTHERS *versus* HARNESS AND THE MEDICAL BATTERY COMPANY, LIMITED.—In this case, in which judgment had been given by Mr. Justice Hawkins in favour of the plaintiffs, an appeal was heard on Dec. 5th before the Master of the Rolls, Lord Justice Lopes, and Lord Justice Rigby. The original action had been brought against the defendants for "maintaining" an action for libel brought by Dr. Tibbits against the present plaintiffs as proprietors of the *Electrical Review*. The court unanimously dismissed the appeal, the Master of the Rolls saying in his judgment, as reported in *The Times* of Dec. 6th, that "it was clear that Harness had instigated this action [that is, the action brought by Dr. Tibbits against the *Electrical Review*—Ed. L.], and that it was really his action brought in the name of Dr. Tibbits, and that Harness' object was that if the action should be unsuccessful he should not be liable to pay defendants' costs. He had no such legal interest in the action as was recognised by the law, and therefore was guilty of maintenance."

THE GENERAL COUNCIL OF MEDICAL EDUCATION AND REGISTRATION.

THURSDAY, NOV. 29TH.

University of Glasgow Final Examinations.

OUR report last week carried the proceedings on this day as far as the presentation in committee of the report of the Examination Committee on the report by the Visitor (Dr. Donald MacAlister) and the Inspector of Examinations (Dr. G. F. Duffey) on the final examinations of the University of Glasgow.

Dr. GAIRDNER said the report of the visitor and inspector had surprised him, because he believed he had not hitherto been regarded as an unduly lax or lenient examiner, and during more than thirty years there had been plenty of time to find him out if he were so. He was the very first in this country to give to clinical examination a proper system, which he did along with Sir Joseph Lister. The clinical examinations in Glasgow had never been challenged, and on a former occasion, when they were much more thoroughly examined than on the present occasion, the conclusions formed with regard to them were, without almost a qualifying circumstance, most favourable. He would like to know what was making him lax and tender-hearted now. The University of Glasgow had not the slightest desire to fly in the face of the Council, and every tangible and reasonable suggestion by the visitor and inspector would receive most careful attention. But while he said that he did not confess to be a lax examiner. There could be no doubt that Dr. Duffey was present on a very unfortunate day—a day when there were two or three candidates in a sense very unsatisfactory. Beyond all question Dr. Duffey went away with the impression that a man who ought not to have received a degree did receive it in the end. He thought they had some right to complain that Dr. Duffey was only present at two or three examinations that day. He saw two or three very bad candidates, and he saw one such as he (Dr. Gairdner) had never seen before in his long experience. The discrepancy between the written paper of this candidate and his oral examination was such as he had never observed previously. He and his fellow examiner had given him for his written paper sixty-five marks, which were considerably above the proper pass mark. That paper had been studiously prepared with a view to bring out the capacity of the candidate, and the answers showed good knowledge. When he found a man who was capable of writing such a paper come in and blunder almost at the first question in the oral examination, he could not help seeing what was the cause of it. It was obvious to him that the man was really unnerved to an extent that he was almost unfit to answer even the commonest question. The man was in a state of panic that made it impossible for him to collect his thoughts. In ordinary circumstances he would have sent the man away and told him to come another day, but to have done that before a visitor might have been regarded as suspicious, and he did not do it. They marked him very low for the oral examination, but put against that the marks for the written paper, and, taking the mean of these, they passed him and no more. It seemed that Dr. Duffey talked to his colleague, Dr. Duff, and got the answer that fifty marks were given for the oral examination. In this way Dr. Duffey appeared to have been misled. The man did not get fifty marks for the oral examination, and it was the redeeming qualities of the written paper that pulled him through. His firm conviction was that they did absolute justice to the man. Dr. Gairdner then read to the Council a number of extracts from the report of the visitor and inspector, and protested against the assumptions which he found them to contain. He in particular protested against the idea that the professional examiner unduly influenced his extra-professional colleague.

Dr. MACALISTER said he yielded to no one in his high veneration and respect for Dr. Gairdner and his appreciation of the work done by him in the University of Glasgow and on behalf of medicine generally. He thought the Council would admit that it was a little hard that Dr. Duffey had no means of replying to the detailed observations just made by Dr. Gairdner, who in this matter enjoyed a great advantage

in being at once one of the examiners and a member of this Council. He did not wish for a moment to dissociate himself from Dr. Duffey; on the contrary, he took full responsibility for what stood over their signatures. Their conclusions were arrived at after much observation and careful conference together, and they represented their joint and deliberate opinion. When the Council sent them to Glasgow and Aberdeen it gave them no instructions as to what they were to do. The only thing they had to go on was the Act of Parliament which said they were to inspect the examinations and report their opinion upon all matters connected with the examinations that occurred to them. Their inquiry in Glasgow lasted for about six weeks, so that it could not be described as hurried. It seemed to them, when they could not be there all the time, that it would not be wrong to sample the examination at various points, and they were either together or separately for a very considerable part of the whole examination. They had a very large body of facts, observed by them either together or separately, before them when they formed their opinion of the examinations. Dr. Gairdner had assumed that the remarks with reference to the professional examiner applied to him only, but he thought a careful reading of the paragraph would show that they referred to surgery as much as to medicine. The conclusion they deliberately came to was that the two pairs of examiners had different methods and different standards, and that the candidates were more or less fortunate according as they came before the one pair or the other. Their opinion was that the two pairs of examiners should have opportunities of consulting together and seeing that they worked upon the same lines. In the system pursued in Scotland it was perfectly natural that the examiners should know something about some of the candidates that came before them. In Glasgow they heard it said again and again by examiners, "Oh, we know this person has been working well; we know that he is a capital man and that there must have been something wrong with him." The only assumption they could make was that the previous knowledge of the examiners of the candidates had its effects.

Mr. BRUDENELL CARTER pointed out that the functions of the visitor and inspector were not of a judicial character. It was not their duty to judge, but to watch and observe, and state the results of their observation.

Dr. HERON WATSON said that if the report of the Examining Committee were adopted all the criticisms and observations of the visitor and inspector would go down to posterity, but not one word of the triumphant reply of Dr. Gairdner. In these circumstances, surely it was desirable that some form of motion should be passed stating the opinion of the Council on the matter.

Sir WILLIAM TURNER explained that in their report the Examining Committee referred the whole matter to the Council, so that such a motion could easily be brought forward. He would like to say a word or two on this subject. He had had a much longer knowledge of Professor Gairdner than Dr. MacAlister could very well have had, for he had known him for nearly forty years, and he could say that he was the very last man in their profession that he should ever dream of bringing an innuendo against that he could possibly do or think anything that was not in the very highest sense of professional and personal honour and integrity. There was no man in the profession who, he believed, had a higher estimate of its honour than he had, and he felt very much when he read this report that there had been certain reflections made upon him as an examiner which ought not to have been made. He said that deliberately. He felt that he was the last man who should be reflected upon in the whole of their medical body politic, and he thought the Council should express its opinion upon the matter.

Sir JOHN BANKS said he claimed to have known Professor Gairdner at least as long as Sir Wm. Turner had, and believed he was the very soul of honour. He hoped an appropriate motion would be drawn up.

Dr. HECTOR CAMERON, while the motion was being drafted, called attention to the circumstances in which candidates who failed in a single subject were allowed to come up again for examination in that subject after the lapse of three months.

Sir DYCE DUCKWORTH then moved: "That this Council, having considered the report of the Examination Committee upon the Final Examinations of the University of Glasgow, and heard statements from Professor Gairdner, Dean of the Medical Faculty of the University and representative of the University on this Council, are of opinion that the specific allegations referred to in the report have been satisfactorily explained."

Dr. MACALISTER seconded this motion, saying he did so with perfect frankness, because Dr. Duffey had already said that he accepted the explanation most completely, and after what Dr. Gairdner had said he thought no one could do otherwise than accept the explanation.

Dr. GLOVER called attention to the passage in the report of the visitor and inspector in which it was stated that, in connexion with the M.B. and C.M. degrees, it was required in practical midwifery, as an alternative to three months' attendance on the indoor practice of a lying-in hospital, that of the twelve cases of labour which the candidate must have "been present at," three at least must have been conducted personally by himself.

Dr. BRUCE inquired whether this was relevant.

Dr. GLOVER thought the objection frivolous. As one of the direct representatives of the profession on the Council he claimed to have the right of bringing before the Council the fact that in a community of 600,000 this University was content with the attendance personally of a candidate at three labour cases. The first remark he had to make was that this did not come up to the requirement or recommendation of the Council. In the next place he said that as an alternative to three months' attendance on the indoor practice of a lying-in hospital this was absurd, and he therefore most seriously proposed this addition to the resolution of the Council: "With an expression of surprise and dissatisfaction that the University of Glasgow is contented with the personal conduct of three cases of labour as an alternative to three months' practice in a lying-in hospital." This question of the insufficiency of midwifery education was one which had been very much before Parliament, the public, and the medical profession, and he was surprised that a university which had the advantage of such men as Dr. Gairdner in its Councils could allow such a statement as this to come before the public.

Sir W. TURNER thought Dr. Glover should quote the resolution of the Council which the University of Glasgow had infringed.

Dr. GLOVER said the very modest demand of the Council was that a candidate should attend twelve cases.

Sir W. TURNER said No. He would read the resolution. It was: "Every student should be required to attend for three months the in-door practice of a lying-in hospital, or to be present at not less than twelve cases of labour at least, three of which he should have conducted personally under the direction of a registered practitioner." Perhaps Dr. Glover would tell them wherein the regulation or resolution of the University differed from the regulation of the General Medical Council he had just read.

Dr. GLOVER said he saw that Sir William Turner, with his acuteness, had got the advantage of him there. But he did not the less press his proposed addition to the resolution, and he expected his friend, Sir W. Foster, would second it.

Professor GAIRDNER said this was a subject which was very much out of his beat. Hitherto the difficulty had been that these attendances on labour cases or at a maternity hospital had interfered greatly with the other clinical studies of the students; they came constantly wanting to be excused from clinical study because they were at the hospital. So he thought care must be taken against piling up at one end at the risk of taking off at the other.

Dr. TUKE asked whether on the question that the University of Glasgow had fulfilled the regulation of the Council they were now to go off on a side path and discuss the general question of the number of labours necessary to be attended.

Dr. FRASER said the regulation of the Glasgow University was practically in the same terms as the resolution of the Council.

Dr. GLOVER said he would withdraw his proposal, but would put it again in another form.

The report of the Committee was then adopted, and the additional motion proposed by Sir DYCE DUCKWORTH and Dr. MACALISTER was carried with the utmost cordiality.

University of Aberdeen Final Examinations.

Sir DYCE DUCKWORTH presented and moved the adoption of the report of the Examination Committee on the report by the visitor and inspector (Dr. MacAlister and Dr. Duffey) on final examinations in medicine, surgery, and midwifery of the

University of Aberdeen. The report of the Committee was as follows :—

"The visitor and inspector report that the final examinations in this University are 'sufficient,' and in many respects excellent.' They, however, point out some defects in the method of certain parts of it. They consider the marking to have been too high in some instances. The examination in clinical surgery is commended, also that in midwifery; but it is remarked that more prominence might have been given to obstetrical instruments and their mode of use, as well as to the employment of the phantom. The examination in medical jurisprudence is reported as good and practical, and that in pathology especially so. In the latter subject the visitor and inspector would have sanctioned even higher marking than that awarded. It is remarked that there was no examination in systematic surgery nor in practical and operative surgery either on the dead or living subject, these portions being taken in the second professional examination. The visitor and inspector were permitted to attend this part of the second examination, and report that it was an excellent one. They, however, condemn the system which permits a student to be examined in these subjects at the end of his third year, and the Senatus of the University holds the same opinion. (The Faculty points out that when the Regulations in conformity with the new Scottish University Ordinances come into force the whole of the examination in surgery will be held in the final and not in the second professional examination.) The visitor and inspector disapprove of candidates who fail in clinical medicine being 'exempted' from re-examination in practice of medicine, and consider that if a candidate passes in the clinical and fails in the written and oral, or *vice versâ*, he should be re-examined in both. If a candidate has gained an exemption mark in practice of medicine and failed in clinical medicine, he has been exempted in the former; but 'the converse' does *not* 'hold good,' as it has been thought desirable to use all possible means to induce candidates to keep up their clinical work. The visitor's and inspector's remark as to the time occupied in the clinical examination in medicine were apparently made with a view to increase the efficiency of that examination by lessening the strain on examiners, candidates, and patients. The Examination Committee are pleased to find that the final examinations of this University are sufficient and satisfactory."

Mr. BRYANT seconded the motion.

Dr. MACALISTER asked that the word "condemn" in the report should be omitted, and the words "are not in favour of" should be substituted, so that the sentence would read : "They, however, are not in favour of the system," &c. Dr. MacAlister added that this would bring the report into harmony with the contention which had been several times made that the reports of the visitors and inspectors had nothing judicial about them.

The report was altered accordingly.

Sir W. FOSTER called attention to the sentence in the report : "The examination in clinical surgery is commended, also that in midwifery ; but it is remarked that more prominence might have been given to obstetrical instruments and their mode of use, as well as to the employment of the phantom." He hoped the University would take to heart the comment which was made in the inspector's report.

In reply to Dr. HERON WATSON,

Dr. ANGUS FRASER said the title of the chair was that of Midwifery and the Diseases of Women and Children. That had always been its scope. As to the time allowed for the clinical examinations, they lasted over four or five days, and the whole of the day.

The report of the Committee was then adopted with the alteration asked by Dr. MacAlister.

The Council having resumed, Mr. WHEELHOUSE moved that the reports on the final examinations passed by the Council in committee be approved by the Council.

This motion was seconded by Sir W. TURNER and agreed to.

Examinations in Public Health.

Upon the presentation of the reports on the examinations in public health of the Universities of Edinburgh, Cambridge, and Durham it was resolved upon the motion of Sir W. FOSTER, seconded by Mr. TEALE, that as there were others to come the Examination Committee be requested to circulate among the members of the Council all reports received one month before the May meeting of the Council next year.

Certificates in Midwifery.

The Council then proceeded to deal with a communication from the Lancashire and Cheshire Branch Committee of the British Medical Association, dated Sept. 1st, in regard to the certificate of the Obstetrical Society of London. The communication enclosed a photograph of a certificate in midwifery issued to an unqualified person in July last, nearly one month after the decision of the Council, and stated that the certificate was identical in size, character, and wording with those issued before the Council's second warning, and also enclosed a photograph of a certificate granted by St. Mary's Hospital, Manchester, on July 31st, 1894. The Executive Committee, upon this communication, referred to the legal advisers of the Council the subject of the power of the Council to deal with the issue of these certificates. The opinion of the advisers had just been received, and the Council deliberated on the subject *in camerâ*, and afterwards adjourned for the day.

FRIDAY, NOV. 30TH.

The Council resumed, Sir RICHARD QUAIN in the chair, and proceeded with the consideration of penal cases.

The Case of Dr. William Henry Brecknell.

William Henry Brecknell, registered as M.R.C.S. Eng., 1860, L.S.A. Lond., 1861. M.D. Univ. St. And., 1862, was summoned to answer the following charge, as formulated by the Council's solicitor :—

"That he, being a registered medical practitioner, did act as cover to, and suffer and permit his name and medical qualifications to be used by, one H Kirby, an unqualified person, at 201, High-street, Plumstead, in order to enable, and he did thereby enable, the said unqualified person to carry on a medical practice in all respects as if he had been duly qualified, and to give death and other certificates signed in his (Brecknell's) name in cases which he (Kirby) alone had attended."

The complaint was made by the London and Counties Medical Protection Society, for whom Dr. Woods, the honorary secretary, appeared.

Dr. WOODS, in his affidavit, which was read by the Registrar, stated that in consequence of information which reached him to the effect that two persons or more were practising medicine under the name of W. H. Brecknell, M.D., while the name of but one such person appeared on the Medical Register, he wrote to W. H. Brecknell at his registered address in Evelyn-street, Deptford, asking if he signed two death certificates to which his name was attached—viz., those of Albert, son of William Rowling of 44, Rippolson-road, Plumstead, Feb. 16th, 1893, and Mary, wife of William Chapman, 54, Riversdale-road, Plumstead, Feb. 19th, 1893, which, he was told, had been signed by a person practising at 201, High-street, Plumstead. He received a letter, and on March 15th, 1893, Mr. Kirby called upon him and informed him that he was unqualified. He admitted signing death certificates with the name "W. H. Brecknell," and said he was authorised by Dr. Brecknell to do so. He also stated that he was the individual who was on March 16th, 1893, charged under the name of W. H. Brecknell for failing to notify an infectious disease. Mr. Kirby furnished a written statement of the arrangement which he said existed between him and Dr. Brecknell, and his wife subsequently stated to him (Dr. Woods) that Dr. Brecknell was cognisant of Mr. Kirby's use of his name, and that there was an arrangement for him to share the profits.

An affidavit by Dr. SIDNEY DAVIES, medical officer of health of the Plumstead district, was also read, in which he stated that for two years or more previously to Christmas, 1892, he was aware of a person practising in High-street, Plumstead, under the name of Dr. Brecknell. He received from him at frequent intervals from February, 1891, till the end of 1892 notifications of infectious disease, which were signed "W. H. Brecknell," and sometimes with the addition of "M.D." On May 28th, 1892, he met this person at the house of one of his patient's suffering from small-pox. He believed him to be a qualified practitioner. Judging from the number of notifications received from him he must, in his (Dr. Davies') opinion, have had a very large practice among the poor and working classes. Subsequently he found that the supposed Dr. Brecknell had failed to notify a case of infectious disease, and he discovered at the same time that the Medical Register did not contain the name of any "W. H. Brecknell" except one living at Deptford and qualified in 1860, who, therefore, could not be so young as the person he knew evidently was. A prosecution was instituted for failure to notify an infectious disease, with the result that the supposed Dr. Brecknell disappeared from Plumstead. He afterwards heard that the real name of this person was Kirby, and that he paid Dr. Brecknell of Deptford a certain proportion of the proceeds of his practice for the privilege of using his name.

Dr. BRECKNELL read a long statement in defence, in which he said that Kirby was his assistant at Greenwich before 1890. He left Greenwich, and some time after came to him and proposed starting a practice at Plumstead. There never was any undertaking, either verbally or in writing, as to dividing profits, and he consented to Kirby's taking the house and starting a practice provided he sent for him (Dr. Brecknell) to each case, thinking they could attend the cases

alternately. He entered into this solely with the idea of helping him and his family and also to assist him to qualify. He denied that he had authorised Kirby to use his name as his own, declared he had not seen him or heard of him for some considerable time, and was greatly annoyed when he found that Kirby had been signing his name as indicated. In what he had done it never for one moment crossed his mind that he was rendering himself liable to any charge of covering; but if the Council thought he had done wrong he threw himself upon their merciful consideration. Dr. Brecknell, who pleaded ill-health and declining energy, read several testimonials, including one from the guardians of the Greenwich Union, testifying to the satisfactory discharge of his duties as a district medical officer.

The Council having deliberated in private,

The PRESIDENT informed Dr. Brecknell that they had come to the conclusion that he had committed the offence of covering an unqualified person charged against him. That, the President said, was a very grave offence, in respect of which the Council might have gone a step further and removed his name from the Register for infamous conduct in a professional respect. However, in mercy to him under the various circumstances he had mentioned, they had decided not to proceed further, but adjourn the further consideration of the case *sine die*. In doing that they hoped he would bear in mind the fortunate escape he had had and would take care not to repeat conduct of this description.

The Case of Dr. Lewis Lamb Bailes.

The name of Lewis Lamb Bailes, registered as M.B., Bac. Surg., 1887, Univ. Durh., who was convicted at the Newcastle-on-Tyne Assizes in July last of a criminal assault and sentenced to five years' penal servitude, was erased from the Register.

The Case of Dr. Herbert Tibbits.

Herbert Tibbits, registered as Mem. Lic. Midwifery, 1865, R.C.S. Eng., Lic. Soc. Apoth. Lond., 1865, M.D. Univ. St. And., 1881, was summoned to answer charges of unprofessional conduct. The charge, formulated by the Council's solicitor, was read as follows by the Registrar, who stated that the case came before the Council on its own direction:—

"(A) The information and evidence relate, firstly, to your alleged connexion with one Cornelius Bennett Harness, a person with no medical qualifications, and a company managed or controlled by that person called the Medical Battery Company, who both carried on an establishment at 52, Oxford-street, London, for administering to patients medical treatment by electricity and electric appliances, and for the sale of things called Harness's Electropathic Belts and other so-called electric appliances, and the charge is to the following effect:—1. That you associated with the said Cornelius Bennett Harness and the said company, and assisted them in a system of attracting and inducing patients to come to the said establishment for medical treatment and buy the said appliances and wares by the insertion in public advertisements of laudatory notices of the said establishment and its treatment and appliances, and that you also associated yourself with and assisted the said Cornelius Bennett Harness at the said establishment, where so-called electrical medical treatment was administered to patients by the said Cornelius Bennett Harness and his assistants. 2. For the purpose of assisting the said Cornelius Bennett Harness and the said company to carry on and create notoriety for the said establishment and its appliances, and in order to attract patients to it and induce them to try the treatment administered there and purchase the said appliances and wares, you wrote and sent to the said Cornelius Bennett Harness, for purposes of publication in advertisements, and authorised and permitted him to publish as coming from you, as a registered medical practitioner, a document purporting to be a letter dated Aug. 24th, 1892, containing a laudatory description and recommendation of the treatment administered at the said establishment, and the appliances and wares sold there, and described in the advertisements of the said Cornelius Bennett Harness and the said company. 3. For the same purposes as those last mentioned, you arranged with the said Cornelius Bennett Harness for the publication and circulation in advertisements of a document purporting to be an extract from the then last edition of a work by you on massage, electricity, and allied methods of treatment, and containing a laudatory description and recommendation of the said institution and its electric treatment, appliances, and wares, inducing readers of the advertisements to think that the said treatment, appliances, and wares had been impartially considered and recommended in a medical treatise of repute. It is further alleged that no such work had been or has been in fact published. 4. You received payment and pecuniary assistance from the said Cornelius Bennett Harness, or the said company, for your services and assistance in helping them to attract patients and advertise their institution and treatment, and sell their appliances and wares. 5. The system of advertising and carrying on the said institution and its treatment and business was of a kind which, if carried on by a registered medical practitioner, would have been professionally disgraceful; and in connecting yourself with the said Cornelius Bennett Harness and the said institution and its business it is alleged that your conduct was professionally infamous. (B) The information and evidence relate secondly to an establishment, called The London Massage and Galvanic Hospital and West-end School of Massage and Electricity, in Weymouth-street, W., and the charge against you as a registered medical practitioner in connexion therewith is that by statements and representations to the public and individuals to the effect that such an establishment was a public charity hospital in need of funds, and by other means, which were of a discreditable character, you endeavoured to obtain money from the public, and that your conduct in connexion with such establishment, as disclosed in the evidence given by you in the trial of the action 'Tibbits *v.* Tove' in the High Court, is so discreditable as to amount to infamous conduct in a professional respect."

The documents in support of the charge were a pamphlet containing the letter and extract referred to; prints of advertisements of C. B. Harness; printed notes of Dr. Tibbits' evidence in the trial of Tibbits *v.* Alabaster in February, 1893; copy of letter addressed by him to editor of *British Medical Journal*; prints of numerous advertisements of C. B. Harness and the company alluded to, inserted in newspapers; printed notes of the trial of Alabaster and Others *v.* Harness and Others before Mr. Justice Hawkins in April, 1894, and of the evidence given by Dr. Tibbits in the action tried before Mr. Justice Hawkins and a special jury on Jan. 19th and 20th, 1894; and an affidavit by Sidney Seymour Wallis, dated Oct. 28th, 1893.

Mr. Muir Mackenzie, Q.C., and Mr. Farrer conducted the case for the Council.

For the defence an affidavit by Mr. Harness was read by the Registrar. In it Mr. Harness said the inferences sought to be drawn from the statements in Mr. Wallis's affidavit were wholly unfounded. Dr. Tibbits was never consulted by any patient of the Medical Battery Company, nor did he interview any of the patients or advise or prescribe for them. In fact, Dr. Tibbits had nothing to do with the establishment except so far as he was asked by the Medical Battery Company to examine and report upon the electropathic belt as an electrical expert, nor had he anything whatever to do with the advertisements in question.

Dr. TIBBITS, in proceeding with his defence, said the investigation was of such importance to him, a man approaching sixty years of age, that he made no apology for its length, and he felt he could not deal adequately with the matter without placing before the Council an abbreviated history of the questions that arose in connexion with these charges. In pursuing this course he entered in considerable detail into the proceedings taken by the Board of Censors of the Royal College of Physicians of London upon the charge of his having given laudatory certificates in favour of the electrical appliances of the Medical Battery Company, showing how he had declined to admit the authority of the Board in the matter, and how the Board had ultimately decided to report to the College their judgment that in giving such certificates he had acted in an unprofessional manner, a decision which he characterised as an unjust one.

At this point, it being six o'clock, the Council adjourned.

SATURDAY, DEC. 1ST.

The Council resumed, Sir RICHARD QUAIN presiding.

The Case of Mr. Thomas Richards.

The first case considered was that of Thomas Richards, registered as M.R.C.S. Eng., 1886, L.R.C.P. Lond., 1888, who had been summoned to answer the following charge as formulated by the Council's solicitor—viz.:

"That, being a registered medical practitioner, he acts as cover to an unqualified person named Hugh Owen, and permits and enables him, under cover of his (Richards') name, qualification, and presence, to attend and administer medical treatment to patients, and to carry on a medical practice, as if he were a duly qualified practitioner, the medical practice being carried on at Llanbilleth, in the county of Monmouth."

Dr. BATEMAN of the Medical Defence Union appeared to support the charge.

Mr. FARRER said that if any member of the Council were a subscriber to or in any way connected with the Medical Defence Union he did not think he should sit upon this inquiry.

The PRESIDENT (addressing Dr. Bateman): Are you aware whether any member of this Council is connected with the Union?

Dr. BATEMAN: I am sorry to say there is not a single one.

The case was then proceeded with.

Dr. BATEMAN explained that Llanbilleth is a colliery village which for some time had no medical man attached to it, but about February last the colliers decided that it would be as well, considering their number and the accidents that occurred among them, to have a resident medical man in the village. They called upon two medical men who had hitherto done the work to decide whether they would be able to live there themselves. Neither of them was able to do this, but one of them (Mr. Richards) said he would put

a qualified man in the place, and he put in Mr. Hugh Owen, who was not a qualified man. Mr. Owen lived in a house at Llanhilleth which Mr. Richards had taken, while the latter lived at Newbridge, about three miles away. The consultation hours at the two places were identical. Dr. Bateman then read affidavits to show that Mr. Owen had signed one certificate as a Member of the Royal College of Physicians and several certificates as "surgeon," and that he had treated serious cases without due supervision by Mr. Richards.

Mr. RICHARDS, in defence, said that this charge had come upon him as a great surprise. He had founded the practice nearly nine years ago, and he built the surgery at Llanhilleth for the convenience of the colliers who worked there. He went to the village almost daily, and very often two or three or four times in the course of a single day. He in the first instance intended having a qualified assistant, but changed his mind because he considered there was not work for one. It was quite well understood, however, in the village that Mr. Owen was not qualified. All serious cases were attended by him (Mr. Richards), and his clear instructions to Mr. Owen were that he should sign nothing whatsoever without his authority. The certificates which Dr. Bateman referred to were sick fund cards with the word "surgeon" printed on them, and Mr. Owen merely signed these for him, and when he knew that he (Mr. Richards) had attended the cases. As to the certificate signed as a Member of the Royal College of Physicians he could say nothing, for he had never heard of the matter until that moment.

In reply to questions by members of the Council, Mr. Richards said that Mr. Owen received a regular salary from him and got nothing from the patients he attended. After consulting with some of his medical friends in the district he had decided to dispense with the services of Mr. Owen, and he now had a qualified assistant at Llanhilleth.

After the Council had considered the case in private,

The PRESIDENT intimated to Mr. Richards that they had come to the conclusion that he had committed the offence of covering an unqualified person in his practice, but they had taken a merciful view of the case and had decided not to remove his name from the Register. They would postpone further consideration of the case till the next November session, when Mr. Richards would be called upon to bring evidence of good conduct in the interval.

The Case of Dr. Herbert Tibbits.

The Council then resumed the consideration of this case, which was entered into on the previous day.

In reply to the PRESIDENT,

Dr. TIBBITS agreed to allow the documents in defence which were before the Council to be held as read, and added a few words in justification of his action with reference to the West-end Hospital, which institution, he complained, had dismissed him at a day's notice. He then called in his support

Mr. BISHOP, who, in reply to the President, stated that he was a medical student, but had not been able to pay fees at any other hospital than Dr. Tibbit's, which he had attended for a year. He considered he was registered as a medical student, and his certificate had been antedated. He had received the antedated certificate last evening.

Sir DYCE DUCKWORTH complained strongly that such a thing should have occurred. This was a matter for the Registration Committee, and their report was not yet before the Council, after which only should such notifications be made to applicants of the finding of the committee.

Mr. BISHOP, in answer to Dr. Tibbits, said he had been chief masseur and electrician at his establishment since Nov. 13th last year. Female patients were supervised by nurses. It was a fact that many patients had been recommended by clergymen and medical men for treatment and had received treatment.

Mrs. HICKS was next called by Dr. Tibbits, in reply to whom she stated that she had met with a severe accident, that she had had massage and electrical treatment at Weymouth-street, and had benefited very much indeed. She had been treated free of charge and had observed with admiration Dr. Tibbits' kindness and general demeanour towards all classes of patients.

Dr. GLOVER inquired how many pupils there were in the hospital.

Dr. TIBBITS said five, he thought.

Mr. BISHOP stated that there was a fee paid, but it did not go to the hospital fund; it went between Dr. Tibbits and him and his wife.

Mr. MUIR MACKENZIE: What were you before November, 1893, Mr. Bishop?

Mr. BISHOP: I was a stockbroker.

Mr. MUIR MACKENZIE: Do they give massage treatment on the Stock Exchange?

Mr. BISHOP: No, certainly not.

Mr. MUIR MACKENZIE: Did you leave the Stock Exchange?

Mr. BISHOP: Yes, I left the Stock Exchange.

Mr. MUIR MACKENZIE: And took to massage?

Mr. BISHOP: I took rather to medicine.

Mr. MUIR MACKENZIE: Are you a partner with Dr. Tibbits?

Mr. BISHOP: In one sense I am.

Mr. MUIR MACKENZIE: In the sense of sharing profits?

Mr. BISHOP: In the school, certainly.

The Council then deliberated in private, and, upon the readmission of strangers,

The PRESIDENT informed Dr. Tibbits that the Council had found the offence with which he was charged proved, and had directed the Registrar to erase his name from the Register.

The Council then adjourned.

MONDAY, DEC. 3RD.

The Council resumed, Sir RICHARD QUAIN, the President, being in the chair.

Certificates in Midwifery.

The Council for nearly two hours *in camerâ* considered the opinion of the legal advisers which they had been requested to prepare on the issue by societies or persons of certificates or diplomas in midwifery, and agreed to the following resolutions:—

"(*a*) That the Council, being of opinion that certain documents issued by various societies or persons as diplomas of education and examination in midwifery are 'colourable imitations' of diplomas conferring a legal right to admission to the Medical Register, and both contravene the spirit of the Medical Acts and are calculated to deceive the public, hereby give notice that from the present date the issue of such 'colourable imitations' by registered practitioners will be regarded as conduct infamous in a professional respect. (*b*) That in the opinion of the Council the form of the certificate now before the Council, and purporting to be granted by the Obstetrical Society of London on July 20th, 1894, is such that it may be regarded as a document coming within the purview of the foregoing resolution; and that this opinion be communicated to the President and Council of the Obstetrical Society."

The Case of Mr. Robert Masters Theobald.

The Council then proceeded to deal with the case of Robert Masters Theobald, registered as M.R.C.S. Eng. 1856, who had been summoned to answer the following charge, as formulated by the Council's solicitor: "That he had published and circulated a book named 'Electro-Homœopathic Medicine,' in which was contained a description and recommendation of the so-called electro-homœopathic cures and medicines of one Count Mattei, and in which it was suggested to persons suffering from disease by him (Mr. Theobald), as a registered medical practitioner, to adopt such so-called cures and medicines as therein stated to be practised and used by him."

Mr. Muir Mackenzie, Q.C., and Mr. Farrer, solicitor, the legal advisers of the Council, conducted the case for that body, while Mr. Theobald was represented by Mr. Acland, barrister, instructed by Mr. Bristowe.

Mr. FARRER said the evidence against Mr. Theobald, who denied the competency of the Council to deal with the matter, consisted of the translation by him of a book written by Count Mattei upon electro-homœopathic medicine, to which he furnished a preface and introduction, in which, it was submitted, he appeared as the exponent and adopter of the practices recommended by the book. The translated work reached three editions, the first being published in 1883 the second in 1891, and the third last year. The matter coming to the knowledge of the Royal College of Surgeons, an analysis of the so-called electro remedies was made in March and April last. The contents of five bottles were dealt with, and the analyst reported that each of the bottles contained a clear, colourless fluid, resembling water in appearance, with a neutral taste, possessing the same specific gravity as distilled water, and leaving nothing on evaporation. With the exception of water, he could find no organic substance, but in one case there was a little suspended stuff in the water which, after minute analysis, he was of opinion was the débris of cork. Further examination was made for electric properties, but in the opinion of the analyst the so-called remedies submitted to him possessed no electric properties whatever, none of the fluids having the slightest effect on the suspended magnetic needle.

The defence put in by Mr. Theobald was read by the Registrar. He emphatically denied the charges made against

him. He admitted he published the book in question, but its circulation had been stopped since April last. He had been a homœopathic practitioner since 1856, and had conducted a somewhat extensive practice without any sort of complaint or suggestion of one made against him. In the course of his practice he became acquainted with the well-known remedies of Count Mattei, and also with cases of remarkable cures which appeared to result from his medicines. He occasionally prescribed them to his own patients. He had never made any charge except the ordinary prescription fee in any case where he so prescribed. The books were sold through the ordinary channels, and not by himself. Until he received a letter from Mr. Farrer this year he was not aware that these publications were objected to or objectionable, nor was any suggestion made to him by the Royal College of Surgeons, and he certainly was under the impression that he was not doing anything which could be considered objectionable or unprofessional. He submitted that the evidence before the Council was not evidence of "infamous conduct in a professional respect" under the Medical Act, and, further, that the Medical Council had no jurisdiction to direct the Registrar to remove his name from the Register.

The PRESIDENT (to Mr. Theobald): Has your name been removed from the list of the Royal College of Surgeons?

Mr. THEOBALD: I believe so.

The PRESIDENT: On what ground?

Mr. THEOBALD: On the ground of the resolution they passed in May.

The PRESIDENT: That you had practised secret medicine?

Mr. THEOBALD: Yes.

Mr. ACLAND then proceeded to address the Council on Mr. Theobald's behalf. He said he appeared in support of a right of the utmost importance to the public at large and to the noble profession to which they all belonged—the right of a man fearlessly to advocate and to practise any system of medicine or any system of cure which he himself honestly believed to be of use in the cure of disease. He admitted at once that if at the end of what he had to say the Council were of opinion that Mr. Theobald had dishonestly advocated these remedies, then they must remove his name from the Register; but unless they were satisfied that he had dishonestly advocated these remedies, then he submitted, whatever opinion they might hold regarding them, they would not be justified in removing his name. The charge he had to meet was the charge of "infamous conduct in a professional respect"—the very strongest words which are known to the English tongue, he should think, to express the ignominy and the disgrace which a man had brought upon himself and his profession, and unless they were satisfied that Mr. Theobald had brought himself into that condition, and had so conducted himself as fairly to lay himself open to the charge that he was a disgrace to the profession, they were unable to remove his name from the Register. He submitted that the Royal College of Surgeons had gone a step too far in the action they had taken. Through their secretary on Jan. 12th last they informed Mr. Theobald that their attention had been called to a book translated by him, containing a preface in which he said he used Count Mattei's remedies, which consisted of a secret method of cure, and they called on him to show cause why he should not be removed from being a member of the College. He (Mr. Acland) desired to call the attention of the Council very strongly to the fact that this was the only charge which had ever been made against Mr. Theobald by the Royal College of Surgeons—the use of a secret method of cure. When he came to read their resolution the Council would see that the College had gone a long way outside that, and had deposed him, not only for using a secret method of cure, but also upon the ground that he had published something which they said was derogatory to the profession. Until the resolution was forwarded to Mr. Theobald no notice was ever given to him that that charge was to be made against him. On Jan. 13th Mr. Theobald wrote admitting that he did use the medicines of Count Mattei, amongst others, but it was really a small part of his practice. He also said he was at a loss to understand why the College should take any notice of it, and added that the use of secret remedies, even if technically forbidden, was practised by all medical men. The correspondence went on with regard to the secret method of cure. On Feb. 13th Mr. Theobald wrote saying he did not wish to receive any injurious censure from the College, and that he was still persuaded that they would not take so serious a step as they apparently contemplated against a practitioner of nearly forty years' standing and of absolutely unblemished character for an offence, if it were one—which he doubted—committed unconsciously. He went on to say that the secrecy in Count Mattei's remedies had always been condemned by him, and was as distasteful to him as to any of his censors; he had strongly remonstrated with the Count on the question and advised him to abandon the secrecy. On April 23rd Mr. Theobald again wrote admitting the publication of the book, but denying that it had anything resembling a vulgar advertising of practice. When he made the translation he had not the slightest suspicion that he was violating any law, and if he had known that he would be condemned he would not have translated the book. Further correspondence showed that Mr. Theobald on several occasions attempted to induce Count Mattei to abandon secrecy as to the composition of his medicines, stating in one communication that they could make no advance in England until "the scandal of secrecy" was removed, and declining to be identified with such a system. Was that, asked counsel, the letter of a dishonest man, of a mere cheat who was trying to shelter himself? He said it bore on the face of it the impress of sincerity on the part of a man who believed there was something in these remedies, but was determined, if the person who put them forward would not take them into his confidence, that he would have nothing to do with them. There had never been any reply by Count Mattei; there was no time for a reply before the action by the College. To Mr. Theobald's astonishment he received through the Secretary to the Council of the College a letter, dated May 12th, informing him of a resolution declaring that, in their opinion, he had professed a secret method or process of cure relating to his practice of a surgeon, that he had published what, in their opinion, was prejudicial to the interests and honour of the College, and disgraceful to the profession of surgery, and that his name be removed from the list. No notice was given to Mr. Theobald of the analysis before the judicial decision was arrived at by the Council of the College, and he first knew of it when he received notice from Mr. Farrer that it was part of the evidence against him. With regard to the word "secret," he submitted that in the rule the word could not possibly mean the secret of any person than the person who was practising. The rule was—"that no Fellow or Member of the College shall publicly profess or advertise a secret method or process of cure relating to his practice." That must refer to a secret method of his own relating to his own practice. He asked, Was it perfectly true that no members of the great medical profession had used or experimented with remedies in the last few years the composition of which they were not cognisant of? There were remedies of which the composition was not known; and were they prepared to say that a man was to be deprived of his diploma because he used in his practice a remedy which was a secret so far as he was concerned? The statute to which this Council owed its existence made it perfectly clear that a name could not be erased on the ground of the person having adopted any theory of medicine.

Dr. HERON WATSON: Theory.

Mr. ACLAND: And practice.

Dr. HERON WATSON: No, no.

Mr. ACLAND: I submit respectfully that theory is nothing at all unless it is to go into practice. If that held good then you might strike off every man who practises homœopathy.

Dr. HERON WATSON: Hear, hear.

Mr. ACLAND, proceeding, maintained in the next place that Mr. Theobald was perfectly entitled, as long as he did it with due regard to the feelings and interests of others, to argue in support of any theory of medicine he liked. There was nothing in the book which was an advertisement of Mr. Theobald himself, or a syllable calculated to make people desert other practitioners to come to him. There was no suggestion of pecuniary profit. He had never sold these remedies himself. Counsel complained that while the book had been in circulation since 1888 action was only taken on the third edition, which was issued last year, and, alluding to absence in the analysis of electricity in the fluids dealt with, he pointed out that Mr. Theobald had explained that there was no electricity in the ordinary sense of the word, but that the term was applied to the remedies on account of the rapidity of their action. As to nothing but water being found on chemical analysis, Mr. Theobald's position was that that was the case with a large number of homœopathic remedies, and he claimed that

he was protected by law in the profession and the practice of the homœopathic theory. This analysis was not known to Mr. Theobald until after he had given an undertaking to the College of Surgeons to give up the public advocacy and use of the remedies. Chemical analysis alone would not show the effect of any drug. Was it not necessary, in order to find out whether any particular fluid or substance had therapeutic or other effects, that they should make experiments, although by chemical analysis they could find nothing produced? Mr. Theobald had experimented with these remedies, and, for all they knew to the contrary, he had experimented successfully. It might be that his diagnosis was wrong and his reasoning powers were defective, but that did not make him an infamous man. Before they found Mr. Theobald had been guilty of infamy they must find that he had wilfully told lies, that he had said people were suffering from diseases which he knew they were not, and that he had prescribed these remedies knowing that the people would get well, and had found afterwards that they did get well in spite of, and not because of, these remedies. In conclusion, counsel read Mr. Theobald's appeal to the College of Surgeons for the return of his diploma.

Dr. MACALISTER said he observed from the book that Mr. Theobald had M.A. after his name. What did that mean?

Mr. THEOBALD: Master of Arts.

Dr. MACALISTER: Of what university?

Mr. THEOBALD: Glasgow University.

In reply to Mr. BRUDENELL CARTER,

Mr. THEOBALD said the list of remarkable cases in the Appendix was a translation from the French.

Sir W. TURNER asked what was the result of the appeal to the College of Surgeons just read by counsel.

Mr. THEOBALD said they had refused to return his diploma, and at this moment he did not hold a diploma. But they sometimes left two years to elapse.

After deliberating in private the Council resolved as follows:—

"(*a*) That, in the opinion of the Council, Robert Masters Theobald has committed the offence charged against him, of publishing and circulating a book named 'Electro-Homœopathic Medicine,' in which is contained a description and recommendation of the so-called Electro-Homœopathic cures and medicines of one Count Mattei, and in which it was suggested to persons suffering from disease by him (Theobald), as a registered medical practitioner, to adopt such so-called cures and medicines as therein stated to be practised and used by him. (*b*) That, in the opinion of the Council, the offence is infamous conduct in a professional respect. (*c*) That the Registrar be directed to erase the name of Robert Masters Theobald from the Medical Register."

The Council then adjourned.

TUESDAY, DEC. 4TH.

The Council reassembled, Sir RICHARD QUAIN presiding. In dealing with the minutes of the previous day's proceedings the Council determined that Mr. Muir Mackenzie should be consulted with reference to the phraseology of the first resolution in the case of Mr. Theobald.

The Five Years' Curriculum: Important Changes.

Dr. BATTY TUKE presented a report by the Education Committee on the registration of pupils as medical students, the recognition of ordinary public schools as "teaching institutions where physics, chemistry, and biology are taught," a communication from the secretary of the Scottish Universities' Commission with reference to the supplementary medical ordinances, and a communication from the Registrar of the Branch Council in Scotland asking information as to the meaning of the expression "five years of professional study" in the new regulations. The report dealt with these four points in great detail, and at the end of it the committee set forth a series of recommendations. Dr. Tuke said he regarded the report as most important, because it enabled the Council to review to a considerable extent the working of the requirements with respect to professional education which had been in operation since January, 1892. He had heard it said that attempts had been made to drive a coach and six through these requirements, and it would be for the Council to see whether such had taken place. If they thought it had occurred they would have to consider how many such vehicles had been driven through, how many gaps there were, and how these gaps could be stopped. He would now move the adoption of the first recommendation of the committee, which was in these terms—viz.:

"That the form for the registration of medical students be amended so as to stand in the following form:—

"FORM FOR THE REGISTRATION OF MEDICAL STUDENTS.

Name.	Preliminary examination in Arts, with date thereof.	Date of registration.	Place and date of commencement of study, as certified by an official of a university, school of medicine, or recognised teaching institution."

The alteration made consisted in the omission of the words "master" and "hospital." Speaking of the latter first, it seemed to be a vague term which might be applied to institutions in no way connected with medicine, and there was a large number of cottage hospitals which could not be regarded as schools of medicine. The change would not affect the great London hospitals, because the students there could register as attending a medical school. The omission of the word "master" was of considerably more importance, because under the existing form of registration the word had been held to include any registered practitioner whose pupil the applicant might be. As matters now stood, it was possible for a student to obtain a licence to practise after three years and a half of study at a medical school. In the requirements it was set forth that "the first four of the five years shall be passed at a school or schools of medicine recognised by any of the licensing bodies enumerated in Schedule (A) of the Medical Act (1858)." But at the same time the requirements allowed a student to be registered who was the pupil of a "master." That had gone on now for three years, and about 350 students had been so registered. It might be argued that a student so registered might be at one and the same time a pupil under a registered practitioner and attending a medical school, but if they looked over the list of students registered, and saw the places where the masters resided, he did not think they would attach much weight to that argument. In many cases students were registered as pupils of their own parents—a very right and proper thing in many ways, but he doubted whether in consonance with the wishes of this Council. In the case of St. Paul's School, many years ago it applied to be recognised, and was refused. Accordingly its young men were registered as pupils of one of the science masters who happened to be on the Medical Register. The attention of the Council was called to this procedure, and he was informed there had been no repetition of it. In order to show how far the interpretation of the requirements of the Council might be attempted to be strained he wished to read an extract from a leading article in THE LANCET of Oct. 27th, 1894. It was this:—

"We are often asked if it is practicable for a student to obtain a medical qualification as well as the licence in dental surgery without greatly prolonging the time required, and this more especially since the introduction of the Conjoint Examinations of the Royal Colleges of Physicians of London and Surgeons of England. It would be illusory to state that the difficulty has not increased since the time when the diploma of the Royal College of Surgeons could be obtained singly, but the regulations of the Examining Boards are arranged to give every facility to the student, and if the student works methodically the medical and special dental examinations can be passed contemporaneously by any man of average ability. But he must be orderly and have the power of regular and steady application. The best of such methods is that suggested by Mr. Morton Smale, the Dean of the Dental Hospital of London. During the mechanical apprenticeship of three years, which is recognised by the Royal College of Surgeons of England if it be served previously to the Preliminary Examination, the student can receive instruction in biology, chemistry (including chemical physics), practical chemistry, pharmacy, and materia medica from any registered practitioner or pharmaceutical chemist, or at a public hospital or infirmary or dispensary; and after the preliminary examination has been passed he should register as both a dental and medical student and present himself for examination in these subjects before re-entering a hospital. As an alternative course he may take the latter two subjects later in his career—viz., at the second examination—and then enter simultaneously at a general and dental hospital."

That was evidently the work of a very skilled coachman, but it was not in accordance with the regulations of any one of the bodies. Still it was possible that a registered practitioner might come to be recognised as a teaching institution, and it might be wise to guard against such a contingency.

Dr. ANGUS FRASER seconded the recommendation, which was at once adopted by the Council.

Dr. BATTY TUKE moved the second recommendation, which was to this effect: "That each of the licensing bodies be requested to forward to the Registrar on Jan. 1st of each

year a list of 'the teaching institutions where physics, chemistry, and elementary biology are taught' which it recognises." He confessed that he entered upon the consideration of this subject with a preconceived objection to the idea of medical students being at any ordinary school, but investigation had shown him that the term "ordinary school" was a mere begging of the question. He had visited four of the schools—the City of London, St. Paul's, Epsom, and Dulwich. He did not pretend to be an expert. Still, he was not unacquainted with laboratory work and the appearance of laboratories, and he might say that all these institutions had been carefully inspected by an expert, the Secretary of the Conjoint Board in England. He (Dr. Tuke) found them all well equipped for teaching physics and chemistry. He found good and extensive laboratories, and a good supply of teaching apparatus, such as instruments. He found boys working in a steady, regular manner, very much in the same way as one found them studying in ordinary medical schools. The boys did not confine their studies to science alone, although the time devoted to it increased year by year. The impression he obtained from his visits was that such a system of education was on the whole preferable to that by which a man might be compelled to get up these three difficult and wide sciences in one year, the knowledge was more thoroughly acquired, and that the system of "cram" could hardly come into existence. He further came to the conclusion that it would be most unwise on the part of this Council to do anything by which the system should be interfered with. He had only been speaking of those high-class schools recognised by the Conjoint Board in England, and if only such schools were recognised all would be well. Unless, however, the system were safeguarded dangers might arise. The committee in their report had set forth the dangers as follows:—

"First, because in practice it may tend to the recognition of an inferior class of schools; secondly, because the standard of examination in science may, as a consequence, be so lowered as practically to lead to the waste of the first year of study; thirdly, because it does not explicitly provide for any preliminary examination in the ordinary school subjects before the special scientific subjects are begun; and fourthly, because, though the Conjoint Boards have safeguarded their system by requiring five years of medical study after registration of such schoolboy students, it is open to any other licensing body to require only four years."

The object of the recommendation he now proposed was to guard against the recognition of inferior schools, which perhaps was the greatest danger of all. If this recommendation were passed it would be the duty of the Registrar to make a list of the recognised bodies and submit it to the Council, and he would not be authorised to register any man as a student unless he presented a certificate of one of the bodies recognised by the licensing bodies for the particular year.

Dr. ANGUS FRASER seconded the recommendation.

Mr. BRYANT spoke of the care taken by the English Conjoint Board in the way of visiting and inspecting the examinations of the teaching institutions before accepting them.

Dr. MCVAIL asked whether the committee contemplated that one body might accept certificates from schools recognised by another body.

Dr. BATTY TUKE replied in the affirmative.

Dr. MCVAIL still thought the scheme would be difficult to work throughout the country.

Sir DYCE DUCKWORTH, speaking for the Conjoint Board, said he was quite sure they would not receive certificates from other divisions of the kingdom. They would only receive certificates from schools that had applied to them for recognition.

Dr. MACALISTER said it would be quite in the option of any body to refuse certificates from schools recognised by another body. Still there was a number of schools of science all over the country, and before they could be recognised for the purpose of Requirement IV. it was necessary that some body should recognise them.

Sir WILLIAM TURNER said with regard to the Scottish universities they had a common ordinance, and they could not accept any education excepting it was considered by the university court of each university to be on a parity with the education which the university itself imparted.

Dr. KIDD, seconded by Mr. WHEELHOUSE, moved to amend the motion by making it run—institutions "which after due inspection it proposes to recognise during the ensuing twelve months, accompanied by a certificate that it has satisfied itself that the said institutions have sufficient laboratory accommodation and appliances for the efficient teaching of the required subjects."

Dr. BATTY TUKE thought these words undesirable because in his view they cast a slur upon the bodies.

Dr. ATTHILL regretted that the chairman of the committee did not see his way to accept the words. In Ireland they felt very keenly on this subject because they knew the certificates were given by persons who were in no way capable of giving proper instruction. They did not accept these certificates, but when they refused them the men took them elsewhere. Instead of the five years' curriculum improving medical education, in his opinion it had had the reverse effect, and if the Council did not take the extremely moderate step proposed by Dr. Kidd he thought the sooner they threw over the five years' system the better.

After a good deal more discussion the Council decided to pass the recommendation of the committee with the addition of these words—viz., "together with a statement that after due inspection it is satisfied that the institutions so recognised possess sufficient laboratory accommodation and appliances for the efficient teaching of the required subjects."

Dr. BATTY TUKE moved the next recommendation, which was to this effect:—

"That the Council, in pursuance of its resolution of Nov. 27th, 1891, proceed forthwith to arrange for the visitation and inspection of the several examinations in physics, chemistry, and elementary biology held by the various licensing bodies."

Under Section 18 of the Medical Act of 1853 and Sections 3 and 4 of the Act of 1886 the Council possessed full power of visiting and inspecting all examinations "to be gone through in order to obtain the respective qualifications" of the licensing bodies.

Dr. BRUCE seconded the recommendation.

Dr. HERON WATSON asked why anatomy and physiology had been omitted from the list of subjects.

Dr. BATTY TUKE replied that the committee were not asked to deal with anatomy and physiology.

Dr. MACALISTER reminded Dr. Watson that the Council had already provided for the inspection of these subjects.

Sir WILLIAM TURNER took exception to the words "proceed forthwith" in the recommendation. He thought the Examination Committee should be allowed to get clear of the final examinations and the public health examinations before they undertook this new work, and he would suggest that the latter be postponed until May.

The PRESIDENT expressed approval of this suggestion.

The result of the discussion was that the recommendation of the committee was adopted, with the excision of the words "proceed forthwith to."

Dr. BATTY TUKE then moved another recommendation to this effect:—

"That with reference to Resolution (j) of June 5th, 1890—namely, 'That the examination in the elements of physics (including mechanics), chemistry, and biology should be passed before the beginning of the second winter session'—the following resolution be adopted: 'A student who has previous to registration attended a course or courses of study in one or all of the subjects physics, chemistry, or biology, in any university, school of medicine, or teaching institution recognised by any of the licensing bodies, may without further attendance be admitted to examination in these subjects, provided always that such course or courses shall not be held to constitute any part of the five years' course of professional study.'"

The point raised here was, he said, whether the Council would refuse to recognise study previously to registration although such study had been sufficient for registration—whether, in fact, it would seek to enforce the strict terms of the requirement by which men might be obliged to retake courses of instruction in subjects in which they were already sufficiently well versed. He could not think that this was the intention of the Council when it framed the requirement. Still, he held that with a strict reading of the requirement any courses of instruction taken previously to registration must not be counted. He recommended the Council to adopt the concession proposed. He thought that in certain cases it would tend to the improvement both of medical and general education. He had always been of opinion that in overloading the first year of study they were doing away with very much of the benefit which was expected to accrue from a five years' curriculum. Already the overloading of the first year was seriously affecting the practical study of anatomy. Men could not dissect as long as they used to do, and in many cases they had to proceed to the study of physiology before they had acquired proper knowledge in anatomy.

Dr. BRUCE, in seconding the recommendation, said that several members of the committee had great difficulty in conscientiously departing from what was laid down in the rules of the Council that the first year of preliminary scientific study should be strictly under medical cognisance. It

took the committee a great deal of time and thought to frame a fair compromise, and in his opinion this recommendation fairly met the case.

Mr. BRYANT congratulated the committee on what they had done.

The recommendation was then agreed to.

Dr. BATTY TUKE announced that with this decision in their hands the committee would be able next May to submit a report on the letter from the Scottish Universities' Commission.

Dr. BATTY TUKE then moved the last recommendation, which was as follows :—

"That for the purposes of Requirement II. the close of the fifth year may be reckoned as occurring at the expiration of fifty-seven months from the date of registration."

This recommendation had arisen, he said, from a letter from the University of Edinburgh as to the real meaning of the five years.

Sir WILLIAM TURNER said that the practical effect of the recommendation was to enable the man who had passed his examination at the end of the summer session of his fifth year to graduate before he went home for his holiday.

The recommendation was at once adopted by the Council.

The New Edition of the Pharmacopœia.

Sir DYCE DUCKWORTH moved that the report of the Pharmacopœia Committee be received and entered on the minutes. The report was as follows :—

"The Registrar reported that, since the last meeting of the Council in November, 718 copies of the British Pharmacopœia, 1885, have been sold; that the total number of copies sold up to the present date have been 41,718; and that 1090 copies remain in stock; further, that 579 copies of the Additions of 1890 have since been sold; that the total number sold to the present date have been 13,204; and that 190 copies of the Additions remain in stock.

"The committee have to report, in connexion with the proposed extension of the operation of the Pharmacopœia to India and the colonies, that a large number of very satisfactory official communications have been already received by the President, through the Privy Council, from those distant dependencies of the Crown, and recommend that the thanks of the Council be returned for the same, with a request that the several Indian and colonial medical and pharmaceutical authorities will be good enough to continue to aid in the production of this edition. The committee recommend that, in accordance with the instructions of the Council and as in the production of the British Pharmacopœia of 1885 and its Addendum of 1890, the President of the Council apply to the respective medical authorities of Great Britain and Ireland, asking their coöperation and assistance in the compilation of the proposed new edition of the Pharmacopœia, more especially as regards omissions, alterations, and additions, the authorities being requested to reply before April next.

"The committee, remembering the valuable assistance given to the Medical Council by the Pharmaceutical Society of Great Britain in the production of the Pharmacopœia Addendum of 1890, recommend that the invitation to that society to assist in the compilation of a new Pharmacopœia be forwarded at once as regards the obtaining of trustworthy statistics respecting well-recognised non-official remedies which are largely in demand, and respecting those official remedies which appear to have become superseded, the society to reply before April next. Further, the committee recommend that the council of the society be invited, as heretofore, to give to the Medical Council before May next the names of pharmacists who would be willing to serve on a Pharmaceutical Pharmacopœia Committee under the guidance of the society's council, such committee finally reporting, with the concurrence of the society's council, to the Medical Council through the Pharmacopœia Committee of the latter Council. The committee anticipates that the editor of the Pharmacopœia would attend all meetings of the Pharmaceutical Committee, not only to place his services at the disposal of that committee, but in order to maintain the committees of the Pharmaceutical Society and of the Medical Council in constant communication with each other.

"The committee recommend that a consultative subcommittee, consisting of the President, Sir Dyce Duckworth, Dr. Leech, and Mr. Carter, be appointed to confer, as occasion may require, with the editor of the Pharmacopœia.

"The committee recommend to the Council that the sum of £1250 should be assigned to Professor Attfield for his services as editor, £500 to be paid to him at once."

Mr. CARTER seconded the motion.

Dr. TUKE moved as an amendment the recommittal of the report. He said he did so as a member of the committee on the ground that the committee had no adequate opportunity of studying and considering the report. It had been the usual custom that all reports were submitted in draft to the members of the committee beforehand, but in this case the draft report was only presented to the committee at the hour of meeting. All that time he was occupied on the Education Committee, and had he known the purport of the Pharmacopœia Committee's report he should have asked the Education Committee to adjourn in order to allow himself and other members of the Pharmacopœia Committee to be present, as the matter was, if not of the highest, at least of immediate, importance. Under any circumstances, the opportunity of considering such a highly important measure was utterly inadequate. The report was sprung upon the committee and an important measure was hurried through the committee stage in less than an hour. He objected very strongly to many points in the report. It was an understanding at the meeting of the committee in May, when it was agreed that Mr. Attfield should be appointed editor, that he should have associated with him experts in pharmacology and therapeutics.

The PRESIDENT: Nothing of the kind. It could not possibly be, I venture to say at once. It would be contrary to law to do anything of the kind.

Dr. TUKE maintained that it was understood that they should have associated with the editor men who could regard the subject from a wide medical point of view. This had been disregarded, so that under the proposed arrangements the new Pharmacopœia would be again a pure pharmacists' Pharmacopœia. In a vague way it was suggested that the various medical authorities were to be asked to coöperate, the manner in which such coöperation was to be effected being left entirely open to the editor. In his opinion it would be far better to associate with the editor one expert physician from each part of the kingdom to work with him. This he (Dr. Tuke) should have proposed and debated in committee had the opportunity been given. The Pharmaceutical Society was very specially asked to assist and to name pharmacists. This, he considered, emphasised the opinion that this was to be a pure pharmacists' Pharmacopœia. He objected very strongly to the constitution of the consultative subcommittee, it being composed of four English representatives, three of whom were from London, Scotland and Ireland being ignored. He also objected to the sum proposed as a salary to the editor, which he regarded as quite out of proportion to the work. To his knowledge the editor of the greatest encyclopædia ever issued in Great Britain never received anything approaching the sum in any one year.

The PRESIDENT: Name.

Dr. TUKE: The editor of the Encyclopædia Britannica. In conclusion, Dr. Tuke expressed his objection to the way in which the whole matter had been brought before the Council, and for that reason he moved his amendment.

Sir W. TURNER, in seconding the amendment, said his great reason for doing so was that one division of the United Kingdom was absolutely unrepresented in this matter—namely, Scotland—whose position in all matters connected with pharmacy and therapeutics entitled it to a voice in the preparation of the Pharmacopœia. It was true Dr. Tuke was a member, but he had been overburdened this session with work on the Education Committee. They could not have the report duly considered and weighed in all its details unless they had Scottish representation on the committee. If the amendment were carried, it was the intention to propose an addition to the members of the committee, so as to bring the representation of Scotland at any rate on a par in that important matter. The action which was now being taken in no way reflected on the President, who was chairman of the committee.

Dr. ATTHILL said as far as he was concerned as an Irish representative he would be most happy to resign; but if Scotland was to have special representatives on the subcommittee he demanded the same for Ireland.

The PRESIDENT said that if Dr. Tuke had been acquainted with the facts of the history of the Pharmacopœia he would not have spoken a word. He would have known that it was the usual course not to submit a report to the committee but to frame one at the committee meeting, and there had been no exception to that course beyond sketching out the report to save the committee trouble. The subject was deeply important. It was thirty-two years or thereabouts since he took the Pharmacopœia in hand. The first edition occupied six years in framing. That Pharmacopœia was condemned. It had cost £6000 and £1100 worth of copies were destroyed. He thought he could be usefully employed in seeing to a new edition, and took steps for the appointment of a new committee to carry out the work, and the result was received with such favour by the Council that an honorarium of £500 was voted to the committee. It seemed to him that what had given most offence on this occasion was the consultative committee, consisting of four English members. The consultative committee had no authority whatever. The object was that in cases of doubt there should be those on the spot to whom the editor could refer. He (the President) saw nothing but the straightforward simple carrying on of the work, which had been so successful. Everyone had pronounced this the best

Pharmacopœia that had ever existed, and that was supported by the large sale which it had had. This was the first time that there had been a suggestion for the introduction of pharmacology. It had been dealt with long ago, and the Council had declared that they had no power to do it and no funds. Their Act specified the scope of their work in this respect, and he repeated that nothing could be more successful than their production of the Pharmacopœia. It was the only property which the Council had, and it had no other income except that derived from the registry. Having defended the amount proposed to be paid to the editor, the President observed that there need be no difficulty about the question of adding members from Scotland to the committee when the time came.

Dr. PETTIGREW said if the Council adopted the amendment he should move the addition to the committee of two Scotch members.

Dr. LEECH could hardly support the adoption of the report by the Council. What he hoped was that everything which was suggested by pharmacists or anyone else should be examined with regard to its therapeutic properties before they admitted it to the Pharmacopœia.

Mr. BRUDENELL CARTER said he had somewhere read of a Scotch judge who said to a suitor in his court that the conduct which had been proved against him was not only highly displeasing in the sight of God but was also in direct contravention of an Act of Parliament. He did not intend to enter into the theological aspects of the proposal put before them, although he did think it might give occasion, if carried into effect, to some strife between different therapeutic authorities of a kind which might be unseemly. But when he turned to the Act under which the Pharmacopœia was constructed he read: "That the General Council shall cause to be published under their direction a book containing a list of medicines and compounds, and the manner of preparing them, together with the true weights and measures with which they are to be prepared and mixed." It appeared to him that that definition of their work prevented them from entering into competition with Dr. Fraser or Dr. Lauder Brunton. They had to perform a specific legal duty and they had ample experience of the lines and methods upon which that duty could be performed thoroughly well. He was quite certain that if they attempted to edit by a committee which would be a committee without a chairman they should have nothing but friction. He was entirely opposed to the amendment.

Dr. MACALISTER, in supporting the amendment, said deliberately that at the close of the last meeting members of the committee who had only heard the discussion which then took place would have no reason to expect that this was the kind of report which was to be presented at the next meeting.

Sir DYCE DUCKWORTH observed with reference to the question of experts that the only experts that he could see were necessary were those who were skilled in the treatment of the sick, and those persons who were experts in the use of drugs were, or ought to be, Fellows of the Colleges of Surgeons in all parts of the kingdom.

Dr. HERON WATSON was surprised at the interpretation given by the President and Mr. Carter of the fifty-fourth clause of the Act of 1858. It appeared to him to be a singular misfortune if this Pharmacopœia, which was to be produced in about seven years, should not contain some degree of information that would make it stand higher in the esteem of practitioners throughout the country than the last Pharmacopœia did. It might be said that this Pharmacopœia was a great work of art, but he failed to appreciate its artistic value; and it seemed to be regarded by many as a curious crystallisation of information of a certain kind, which was absolutely worthless for the regular employment of the general medical practitioner throughout the country. His anxiety was to see that pharmacists cognisant with pharmacology and therapeutics should be put on a consultative committee, and he would mention as amongst those he would wish to see Dr. Lauder Brunton and Dr. Phillips, London; Professor Fraser, Edinburgh; Professor Charteris, Glasgow; Dr. Stockman, Edinburgh; and Dr. Walter Smith, Dublin. The names of such medical men would carry weight.

The PRESIDENT mentioned that on the committee in connexion with the first edition which came to grief were Dr. Squire, Dr. Garrett, and others. It would be simply impossible to constitute committees such as Dr. Watson had named.

Dr. GLOVER could not help thinking that the final judgment on this matter would be somewhere between the extreme opinions which had found expression that day. He could not imagine that they could ignore the aspect of therapeutical research in determining the procedure to be pursued in regard to the next Pharmacopœia. He confessed the list of names Dr. Heron Watson had suggested filled him with alarm, but he could not help thinking that if the report were recommitted it would be the means of reconciling the two different sections of opinion. He gladly acknowledged the great value of the President's services, and said they should not be satisfied until they had his assent to, or recognition of, the pharmacological element.

The PRESIDENT said it would take many years to make a satisfactory pharmacological book, and for his part he could not willingly undertake it.

Dr. BRUCE thought they should not proceed too hastily. It seemed to him they were drifting into a pharmacist's Pharmacopœia instead of a medical one.

Dr. MCVAIL hoped the President would be able to see his way to adopt the suggestion made by Dr. Glover, and take the report back in order to consider whether they could not associate with the subcommittee a gentleman of distinguished position in pharmacology. It seemed to him that if they admitted new drugs to the Pharmacopœia they should know the reason why.

A vote was then taken, when the amendment was carried by 12 to 9.

The PRESIDENT asked that the names be taken, which was done, with the following result:—For the recommittal, 13—Mr. Wheelhouse, Dr. Gairdner, Dr. Glover, Dr. Leech, Sir William Turner, Dr. Heron Watson, Dr. Fraser, Dr. Bruce, Dr. Tuke, Dr. Pettigrew, Dr. McVail, Dr. Cameron, Dr. MacAlister; against, 10—The President, Sir Philip C. Smyly, Dr. Philipson, Sir Dyce Duckworth, Dr. Charles Moore, Mr. Carter, Dr. Kidd, Dr. Atthill, Sir Walter Foster, Dr. Wm. Moore. Did not vote, 2—Mr. Bryant, Mr. Teale. Absent, 5—Sir John Simon, Sir John Banks, Dr. Church, Dr. Haughton, Dr. Wilks.

The PRESIDENT asked, as the report was to be referred back to the committee, which he thought should meet the next day, and if there were any amendments what were they to do?

Dr. HERON WATSON: Take it six months hence.

The PRESIDENT said if the meeting of the committee were postponed until May the stock of Pharmacopœias would run out. He thought they had better meet the next day at one o'clock.

Dr. PETTIGREW moved that Dr. Hector Cameron and Dr. McVail be appointed members of the Pharmacopœia Committee.

Sir W. TURNER said it was important that they should know when the committee was to meet to reconsider the report, and he thought the Council should express an opinion. He understood from the President, who was chairman of the committee, that they would be prepared to meet at one o'clock the next day.

The PRESIDENT: The whole of the arrangements for the Pharmacopœia are now in hand. They are going on steadily and right, and if you interrupt them the consequences will be very serious. Of course, the committee are competent to come to any conclusion they like, and surely they can come to a decision in an hour to-morrow. If it is not decided to meet at one o'clock to-morrow I feel I could not go on with it, and I should therefore tender my resignation as chairman.

Dr. HERON WATSON said he should regret personally if the chairman were to contemplate such a resignation. At the same time he thought that they should take into account the debate which had taken place and the result of the vote. He thought it would be a thousand pities in the circumstances to ask the committee to sit the next day and report to this session. The atmosphere was too thunderous at present for the committee to afford that light and guidance which they desired. He would suggest postponement until next May, when they might have light and guidance, not merely from the present committee, but also from the committee, which might then undergo some material alteration.

The PRESIDENT said it was in the authority and power of the chairman of any committee to summon that committee. He should think it his absolute duty to summon the Pharmacopœia Committee for one o'clock the next day.

Dr. BRUCE thought it probable that nothing would be gained by presenting the report again.

Sir DYCE DUCKWORTH said he could come to no other

conclusion than that the vote of the Council just now was simply a vote of want of confidence in the Pharmacopœia Committee; therefore he formally laid his resignation as a member in the chairman's hands. He had himself a very strong opinion of what the Pharmacopœia should be; but he could take no part in following up any such scheme as the introduction of pharmacology.

Mr. BRUDENELL CARTER begged leave to follow the example of Sir Dyce Duckworth and to tender his resignation as a member of this committee.

Sir PHILIP SMYLY re-echoed what had fallen from the last two speakers.

Dr. GLOVER appealed to the members of the Pharmacopœia Committee not to act in this haste. He trembled to think of the consequences if, when a committee met with an adverse vote on a matter of the greatest importance—a thing which only occurred once in a generation perhaps,—they were to act on the spur of a temporary feeling and to resign their positions. He felt that that compromised the dignity of the Council. He appealed to the President not to give the sanction of his personal example to such a course.

Mr. BRUDENELL CARTER said there was no personal feeling at all. He tendered his resignation because the Council asked him to take part in producing a work of which he disapproved.

The PRESIDENT: I wish to say that to introduce pharmacology into the Pharmacopœia would be contrary to law. It would be an impossible work; the Council could not do it.

Dr. LEECH said the majority of those who took part in the debate had no idea of pharmacology being introduced. The only idea was that it should be seen that nothing should be introduced unless it was clearly right that it should be introduced.

Dr. PETTIGREW reminded the President that he had submitted a motion, which was seconded by Dr. Heron Watson, for the addition of Dr. Hector Cameron and Dr. McVail to the Pharmacopœia Committee.

Dr. HERON WATSON pointed out that if the Pharmacopœia Committee met at one o'clock and the Council met as usual at two o'clock the object of having these additional members on the committee would be lost. He thought, therefore, the motion of Dr. Pettigrew should be dealt with now.

The PRESIDENT, repeating that he felt it his duty to call on the committee to meet at one o'clock the next day, ruled that Dr. Pettigrew's motion was no more than a notice, which could not be dealt with now.

The subject then dropped.

A case of covering was also heard against a practitioner, which the Council considered to be not established.

WEDNESDAY, DEC. 5TH.

The Council resumed, Sir RICHARD QUAIN presiding.

The New Edition of the British Pharmacopœia.

Dr. BATTY TUKE said that the President had asked him to state that the committee had reconsidered the report, and had so far altered it as to leave the several questions which were debated yesterday in the Council and were not considered in the previous draft report open for consideration. In the interval these questions would meet with careful consideration, and would then come before the Council in such form as would enable the Council to come to a final decision. The warmest thanks of the committee and Council were due to the President, who since yesterday had been able to prepare and lay before the committee a draft report, which had been unanimously accepted by the committee. He should like to add that the high respect in which he had always held their President had been increased by the admirably judicial manner in which he had acted in this matter. Dr. MacAlister would read and present the report.

Dr. MACALISTER said that the President had asked him to act as secretary of the meeting, and he held the manuscript report in his hand. The first paragraph of the report as presented yesterday by Sir Dyce Duckworth with reference to the copies of the Pharmacopœia stood. So also did the second paragraph with reference to India and the colonies. The third paragraph as to procedure in asking advice and assistance of the respective medical authorities of Great Britain and Ireland was altered by the substitution of March for April next. In the next paragraph everything after the words "such committee finally reporting with the concurrence of the society's council to the Medical Council through the Pharmacopœia Committee of the latter Council" was struck out; and the two remaining paragraphs in their entirety were struck out. Then the report went on to say:—

"The committee have taken note of the opinions expressed in the Council on the question of associating with Professor Attfield one or more persons conversant with other than the pharmaceutical aspect of the work of the editorship. The question whether this is necessary and practicable will be carefully considered by the committee and will be reported upon to the Council at its next session. The committee think it most important that the Council should be fully informed as to the method adopted in preparing previous editions of the Pharmacopœia, and more particularly the last edition. They first appointed an editor or editors in pursuance of the terms of Section 54 of the Medical Act, 1858. The committee then adopted the following memorandum:—

"'The committee are desirous of enlisting the cooperation of the several medical and pharmaceutical authorities and of such persons as may be able to furnish useful information with the view of rendering the work as complete and accurate as possible. In furtherance of this object the committee invite and will be happy to receive such suggestions as may be made to them by the above-mentioned authorities and to give these suggestions their most attentive consideration.'

"This memorandum was sent to nineteen medical authorities, thirty-two pharmaceutical authorities, and forty-one persons known to be competent to advise and assist the Council. In reponse about 350 replies were received. These were arranged, printed, and submitted to each member of the Pharmacopœia Committee. The replies had reference, not only to the insertion of new medicines and the omission of obsolete ones, but to many alterations and changes in the composition of medicines, to doses, and the like. Especially valuable were the replies upon these points from the Royal College of Physicians of London. The committee propose to address a like communication to the several authorities as on previous occasions, and to invite them to send to the President such suggestions as they may be pleased to offer before the end of March next. All such suggestions will then be arranged in a convenient form, printed, and sent to each member of the Pharmacopœia Committee prior to the next session of the Council. The committee will then consider whether its members feel capable of themselves deciding upon the medical questions raised by the various suggestions as they have hitherto done, or whether they feel it necessary to seek assistance of this nature outside the committee. This point will be best determined when the whole of the suggestions are before the members. The committee further recommend that at the Council's meeting in May next the constitution of the Pharmacopœia Committee be reconsidered."

Dr. MACALISTER re-echoed what Dr. Tuke had said about their great indebtedness to the President in this matter. It was he who had prepared the draft report, and the moment it was read to the committee it was plain that the President had succeeded in enlisting the unanimous approval of the members.

The Council at once adopted the report.

The PRESIDENT thanked Dr. Tuke and Dr. MacAlister for the kind way they had spoken of him.

Students' Registration.

A report by the Students' Registration Committee was presented by Sir Dyce Duckworth and agreed to.

Diplomas in State Medicine.

Sir DYCE DUCKWORTH handed in reports by the Examination Committee on the inspector's reports on the examinations for diplomas in State medicine of the Scottish Conjoint Board and the University of Aberdeen.

Publication of Committee's Report.

Sir DYCE DUCKWORTH said that in perusing the pages of THE LANCET of last week he discovered that a confidential report of a committee of the Council had been reproduced before it had even been discussed by any member of the Council. That report contained a reference to remarks which were made by the visitor and inspector of the examination of the Conjoint Board. In the course of the discussion on the following day the Council saw fit to materially alter the report, but the particulars of the discussion received no notice in the pages of THE LANCET. He was sure there must be something wrong for such a report to reach the press, and he hoped the matter would not occur again.

Dr. TUKE said that on a previous occasion he drew attention to a similar act on the part of one of the medical papers. A confidential report of the Education Committee was reviewed *in extenso* a week previously to the meeting of the Council.

Sir DYCE DUCKWORTH said he proposed to move that no report should appear until it had been discussed and adopted. No doubt the report in question was ordered to be entered on the minutes, but the discussion and adoption were other matters. He wished to know on whom the blame rested. He did not know how the reporters got hold of these reports. He supposed they were handed to them.

Mr. BRUDENELL CARTER wished to call attention to the report in THE LANCET of the proceedings of Nov. 29th. It stated that "on the motion of Dr. Leech the paragraph beginning &c. was struck out of the report." It was quite obvious that that part of the report fell out when the remarks to which it referred were withdrawn.

Dr. BRUCE supposed that this occurred after the report had been entered on the minutes. He held that if anything appeared on the minutes it became public property.

Sir DYCE DUCKWORTH: No, not until they had been adopted. It would be a monstrous thing that reports should be handed in and placed on the minutes, and should thus be discussed in the public papers though they were afterwards materially altered by the Council.

Dr. TUKE: In the case I speak of the comments were made before the Council met.

Dr. BRUCE thought the point should be settled as to whether a paper became public property after being submitted to the Council. It had always seemed to him that they did.

Dr. MCVAIL said it seemed to him that the difficulty which Sir Dyce Duckworth had so very properly brought forward ought to be got rid of by not entering matters on the minutes until the Council had discussed and considered them, when the Council could remove or alter any portions they pleased. It appeared to him that as soon as the document in question was entered on the minutes THE LANCET or any other newspaper was perfectly justified in dealing with it as a public matter. The blame should not lie on the newspapers at all, but on the custom of the Council. He had drafted a resolution to the effect that in future this Council should not put its documents on the minutes until the Council had considered them, but Mr. Muir Mackenzie had assured him that such a resolution was wholly unnecessary. His attention was called to the standing order which provided that the minutes of each meeting from day to day should be printed and marked "confidential" until confirmed and signed and sent to each member. As far as he knew the minutes were not sent to each member confirmed and signed until they had been home for a week or two. Was the press to wait for a fortnight or three weeks before it could in any shape or form comment on what took place? Surely they were not going to ask THE LANCET and other medical papers to muzzle themselves until the word "confidential" was removed. It seemed to him that as soon as they had entered a document on the minutes it was public property. He thought they should cease to enter them on the minutes until they had discussed them.

Dr. GLOVER thought the Council would see the force of the observations made by Dr. McVail on this subject, and would not be disposed to blame the reporters for doing what was simply their duty. The report appearing in THE LANCET of what occurred in reference to the English Conjoint Board on the Wednesday, when the committee's report was read *verbatim*, was literally correct, so far as he could remember. The alteration in the committee's report was not made until the following afternoon, after the minutes were issued. He thought it was too much to expect of the reporters that they could prophesy on Wednesday what was to happen on Thursday. They were only concerned with what was occurring on Wednesday. So long as they confined themselves to what was on the minutes he thought they should be supported by the Council.

Sir DYCE DUCKWORTH then moved: "That this Council will view with great displeasure the communication to the press of any reports of the Council until they had been discussed and adopted by that body."

Dr. HERON WATSON seconded the motion.

Dr. MCVAIL thought such an important motion as that required notice and that it should be put on the programme for the next day. He distinctly objected to so strong a resolution as that being sprung on the Council in this fashion.

Dr. BRUCE: It seems to me that the motion is absurd. To invite the reporters to come here and then to proceed to muzzle them is absurd.

Sir DYCE DUCKWORTH assented to the course suggested by Dr. McVail, and the motion was directed to be inserted in the agenda for the next day.

The Case of Mr. Daniel Costelloe.

The consideration of this case, which was begun on Tuesday, was resumed, Mr. Costelloe, who was registered as M.R.C.S. Eng., 1867, had been summoned to appear to answer the following charge as formulated by the Council's solicitor:—

"That he acts as cover to an unqualified practitioner named T. W. Allen, who carries on a medical practice at Surrey-street, Croydon, and at Selhurst, and, by lending the use of his name and medical qualifications, enables the said T. W. Allen to attend patients, give certificates of death and illness in cases attended by him while carrying on such medical practice, and in all respects to carry on a medical practice as though he was duly qualified."

The charge was supported by Dr. Woods, the secretary of the London and Counties' Medical Protection Society, and Mr. John Nicholls, solicitor, appeared on behalf of Mr. Costelloe.

Mr. NICHOLLS read a defence of Mr. Costelloe which had been put in, and afterwards made a statement in defence. It was maintained that the charge was entirely unfounded; that Mr. Allen had never given certificates of death on behalf of Mr. Costelloe, who had seen every case before he had signed a certificate; that they lived together, and that Mr. Allen was constantly under Mr. Costelloe's supervision; and that Mr. Allen was paid a salary of £2 a week as Mr. Costelloe's assistant.

Mr. MUIR MACKENZIE informed Mr. Nicholls that the Council had had before them in 1892 the case of Dr. Robertson, and it was found proved that Mr. Allen had signed in Dr. Robertson's name three death certificates.

Mr. COSTELLOE stated that he had purchased the practice from Mr. Allen, by whom it was admitted that he had attended no lectures and passed no examinations.

After deliberating in private the Council came to the conclusion that the offence charged was committed, that it constituted in their opinion infamous conduct in a professional respect, and that the Registrar be directed to remove Mr. Costelloe's name from the Register.

The Case of Dr. Charles Oakes.

Mr. Charles Oakes, registered as Lic. Soc. Apoth. Lond., 1869, M.B., Mast. Surg., 1873, Univ. Aberd., was summoned to answer the following charge as formulated by the Council's solicitor:—

"The charge is in relation to a so-called rupture cure advertised and practised by an unqualified person called J. S. Sherman, and to a medical practice advertised and carried on by the said unqualified person in London and Manchester, and is: (*a*) That he (Oakes) lends the aid of his name and professional qualifications to further the practice by Sherman of the said rupture cure, and enable and assist Sherman to advertise the said cure and his medical practice. (*b*) That he (Oakes) is personally a party to discreditable and mischievous advertisements and public recommendations of the said cure, published for the purpose of inducing patients to consult Sherman as a medical man. (*c*) That he (Oakes) aids and assists the said unqualified person to carry on the said medical practice as though he were duly qualified."

Dr. BATEMAN, of the Medical Defence Union, appeared in support of the charge.

Dr. OAKES, in defence, said the only Sherman he knew was S. J. Sherman, who had demonstrated to him very clearly that he was most successful in the treatment of hernia cases. This Mr. Sherman did not pretend to be in medical practice. He (Dr. Oakes) admitted giving testimonials, but did not authorise their publication. He denied acting as cover to Sherman.

The Council having deliberated in private,

The PRESIDENT informed Dr. Oakes that they had come to the conclusion that he had committed the offences charged in paragraphs *a* and *b* of the case; that the offences were, in their opinion, infamous conduct in a professional respect; and that the Registrar should be directed to erase his name from the Register.

Dr. OAKES: Then my only consolation is that I failed in the cause of truth.

The Council adjourned.

THURSDAY, DEC. 6TH.

The Council resumed, Sir RICHARD QUAIN presiding. Much of the time of the sitting was occupied with revising the standing order regulating the procedure to be adopted in restoring names to the Medical Register. The third section was altered very considerably, being made to run:—"The statements in the application must be verified by a certificate in writing to be given by a Justice of the Peace, and by a registered medical practitioner resident in the neighbourhood where he has been residing since his removal." Another matter dealt with was a charge of unprofessional conduct, in which the Council determined to erase from the Register the name of the person charged. A motion proposed by Sir DYCE DUCKWORTH, "That the Council views with grave displeasure the communication to the press of any reports of the Council which are marked 'Confidential,'" was only supported by five members and was rejected. The business of the session was then brought to a close.

[We shall deal with Thursday's proceedings in more detail next week.]

Medical News.

KING'S COLLEGE, LONDON.—FREE LECTURES.—Professor W. D. Halliburton, M.D., F.R.S., will deliver a lecture on Wednesday next, Dec. 12th, 1894, at 7 P.M., on the Process of Digestion of Food in Animals and Plants. The lecture will be explained by lantern illustrations and practical experiments.

INCORPORATED MEDICAL PRACTITIONERS' ASSOCIATION.—A meeting was held on Monday afternoon at the Athenæum, Camden-road, at which Dr. Eady took the chair. Resolutions were unanimously adopted condemning the conversion of hospitals into commercial undertakings by the reception of pay patients.

PADDINGTON-GREEN CHILDREN'S HOSPITAL.—A donation of £500 has been received from Mr. William Debenham for the building fund of this hospital. We learn from Mr. W. H. Pearce, the secretary, that further contributions are much needed to complete the work and furnish the wards.

NORTHUMBERLAND AND DURHAM MEDICAL SOCIETY.—At the meeting of this society, held on Nov. 8th, the President (Mr. F. Page) showed a man on whom he had performed Pyloroplasty in March, 1892, for Traumatic Stricture of the Pylorus, who had continued in perfect health ever since. After the exhibition of cases a very interesting discussion on Gall-stones ensued, introduced by Mr. Rutherford Morison, who went fully into the diagnostic methods of ascertaining their position when impacted.

FOOTBALL CASUALTIES.—At Cwmbran, Monmouthshire, in a match, on the 24th ult., a player sustained a rupture of his bladder, causing death.—On the 29th ult., at Camberley, near Farnham, in a match between the officers of the Royal Military College and the officers of the Staff College, a player fractured his leg.—On the 30th ult., a youth aged eleven years, in a game at Palmer's Park, Reading, fractured his right femur.—On Saturday last, during a match at Worcester Park, Surrey, a player fractured his leg and was removed to St. Thomas's Hospital.—On the same day a young man aged twenty years, playing a game at Primrose-hill, sustained injuries to his left eye and face and received medical treatment at the Middlesex Hospital.

THE ANTI-CORSET LEAGUE.—At an exhibition of general clothing, held by this association in Queen's Hall, Langham-place, many ingenious garments and details of attire were on view. Rational stays, under the title of "Anti-corsets," were exhibited by Messrs. Herts, Son, and Co., shoes for use in cases of bunion, under the title of Toe-post shoes, by Messrs. Holden Brothers, and various kinds of sanitary and hygienic underwear, also waterproofs by well-known makers. An ingenious and useful idea was shown by Miss Sheppard in a dividable dress for use in cases where there is a difficulty in dressing a patient. The arms, legs, and body of the garment are each put on separately, and the whole fastened together by tapes. This form of garment is specially useful during massage, as it is only necessary to uncover the part of the body to which the treatment is being applied.

DUDLEY GUEST HOSPITAL.—The twenty-third annual report of this hospital, submitted at a meeting held on Nov. 28th in the town hall, Dudley, showed a continuous decline in the yearly income. The total receipts were £3129, and fell short of the expenditure by £236. An enlargement of the female wards and a new operating-room are urgently needed, but cannot be commenced until at least £1000 are in hand. It was proposed that any body of workmen or any association subscribing not less than two guineas annually might appoint a representative with one vote at the annual meeting. Some opposition was manifested, chiefly on the ground that the working-class representatives would have a very great preponderance of voting power. It was ultimately decided to consider the question at a special meeting. During the twelvemonth there had been 674 admissions and 48 deaths.

MEDICAL MAGISTRATE.—Mr. Bertram Thornton, L.R.C.P. Lond., M.R.C.S., has been placed on the Commission of the Peace for the borough of Margate.

JEWISH PATIENTS AT THE METROPOLITAN HOSPITAL.—We learn from the secretary that the committee of management of this hospital have made arrangements for Jewish patients as inmates, as well as for their treatment as out-patients, in case of sickness. Dr. Abraham Cohen has been added to the medical staff of the institution in order to attend to Jewish out-patients, and special nurses will also be engaged for the same purpose. A "kosher" kitchen has also been provided.

NATIONAL DENTAL HOSPITAL AND COLLEGE.—The annual dinner of the past and present students was held at the Holborn Restaurant on Friday, the 30th ult., Sir Walter Foster, M.P., Parliamentary Secretary to the Local Government Board, in the chair. Amongst the visitors present were Sir William MacCormac, Dr. Vivian Poore, Dr. S. Coupland, and Messrs. A. E. Barker, H. R. Spencer, H. G. Howse, J. Langton, F. Canton, S. J. Hutchinson, S. L. Rymer, J. Smith Turner, Bilton Pollard, and Raymond Johnson.

FOREIGN UNIVERSITY INTELLIGENCE.—*Prague:* Professor C. Weil has accepted the chair of Surgery.—*Bahia:* Dr. G. Pereira has been appointed to the Professorship of General Pathology.—*Dorpat (Iurieff):* Dr. Dragendorff, Professor of Pharmacy, and Dr. Kobert, Professor of Pharmacology, are resigning their chairs and are about to return to Germany.—*Gratz:* Dr. R. von Steinbüchel and Dr. Emil Rossa have been recognised as *privat-docenten* in Midwifery and Gynæcology.—*Innsbruck:* A new block of buildings has just been added to the hospital. In it accommodation is provided for several clinics, including those for nervous and mental diseases, syphilis and skin diseases, and ear and throat wards.—*Kazan:* Dr. Fortunatoff has been promoted to an Ordinary Professorship of Physiological Anatomy, and Dr. Kasem Beck has been appointed Extraordinary Professor of Diagnosis.—*Kharkoff:* Dr. Orshanski has been appointed Extraordinary Professor of Nervous and Mental Diseases.—*Vienna:* Dr. Isidor Schnabel of Prague has been appointed Professor of Ophthalmology, with charge of the First Ophthalmic Clinic, in place of the late Professor Mauthner.

BOOKS ETC. RECEIVED.

BAILLIÈRE, J. B., ET FILS, Paris.

Formulaire des Médicaments Nouveaux et des Médications Nouvelles. Par H. Bocquillon-Limousin. Sixth Edition. pp. 316.

BAUERMEISTER, F., Glasgow.

Atlas of the Human Brain and the Course of the Nerve Fibres. By Dr. Edward Flatau. With a Preface by Prof. E. Mendel. Translated by Wm. Nathan, M.D., and John H. Carslaw, M.D. 1894.

CHURCHILL, J. & A., New Burlington-street, London, W.

The Prevention of Epidemics, and the Construction and Management of Isolation Hospitals. By R. McNeill, M.D. Edin., D.P.H. Camb. Illustrated. 1894. pp. 247. Price 10s. 6d.

FANNIN & CO., Dublin.

Manual of Diseases and Deformities of the Spine. By R. L. Swan. Illustrated. 1894. pp. 194. Price 7s. 6d. net.

GOVERNMENT PRINTING OFFICE, Washington.

Department of the Interior Census Office. Vital Statistics of New York City and Brooklyn, covering a period of six years ending May 31st, 1890. By J. S. Billings, M.D.

Index Catalogue of the Library of the Surgeon-General's Office, United States Army. Authors and Subjects. Vol. XV. Universidad, Vzoroff. 1894.

LEHMANN, J. F., München.

Atlas der Ophthalmoskopie. Von Dr. O. Haab. Band VII. 1895. Illustrated.

MURRAY, JOHN, Albemarle-street, London, W.

Josiah Wedgwood, F.R.S.: His Personal History. By Samuel Smiles, LL.D. 1894. pp. 304. Price 6s.

The Life of Richard Owen. By his Grandson, the Rev. Richard Owen, M.A. With the scientific portions revised by C. D. Sherborn. Also an Essay on Owen's Position in Anatomical Science. By the Right Hon. T. H. Huxley, F.R.S. Illustrated. In 2 vols. Vols. I. and II. 1894. Price 24s.

PENTLAND, YOUNG J., Edinburgh and London.

Atlas of the Diseases of the Skin. By H. R. Crocker, M.D., F.R.C.P. Illustrated. Fasciculus VII. Price 1 guinea net.

REBMAN, F. J., Adam-street, Strand, London.
Meteorology: Practical and Applied. By John W. Moore, M.D.Dub. 1894. pp. 445. Price 8s.

REIMER, GEORG, Berlin.
Die Pfeilgifte. Von Prof. Dr. L. Lewin. 1894. pp. 152.

THACKER, SPINK, & Co., Calcutta.
The Carlsbad Treatment for Tropical Ailments in India. By L. T. Young, M.D. 1894. pp. 111.

UNWIN, T. FISHER, Paternoster-square, London.
Climbing and Exploration in the Karakoram, Himalayas. By W. M. Conway, M.A., F.S.A., F.R.G.S. With Maps. 1894. pp. 127. Price 15s. net.

WRIGHT, JOHN, & Co., Bristol.
An Epitome of the Literature of Modern Urinary Surgery. By E. Hurry Fenwick, F.R.C.S. Illustrated. 1894. pp. 219. Price 4s.

Memento formulaire des Médicaments Nouveaux; par H. Soulier (G Masson, Paris, 1895).—Jahrbuch für Kinderheilkunde; 39. Band, 1. Heft (B. G. Teubner, Leipzig, 1894).—The Sanitary Journal, November, 1894 (W. Hodge, Glasgow); price 1s.—The Treatment of Empyema, with Selected Cases; by J. W. White, M.D., and A. C. Wood, M.D.; reprint (G. S. Davis, Detroit, Mich., 1894).—An Address on Appendicitis: delivered before the Surgical Section of the College of Physicians of Philadelphia; by J. W. White; reprint (G. S. Davis, Detroit, Mich., 1894).—La Chirurgie Contemporaine des Organes Génito-Urinaires; by Dr. J. M. Lavaux; October, 1894 (Rédaction, 17, Rue Godot-de-Mauroi, Paris).—The New Science Review, October 1894 (The Transatlantic Publishing Company, Philadelphia, and 26, Henrietta-street, Covent-Garden, London). — Statistique et Observations de Chirurgie Hospitalière; par le Dr. Polaillon (Octave Doin, Paris, 1894).—Observations upon the Medical Department of the British Army made in 1891; abridged from an official report by Brevet Lieutenant-Colonel A. A. Woodhull, Major Medical Department, U.S. Army; reprint (Buxton and Skinner, St. Louis, 1894).—Annals of Ophthalmology and Otology; edited by J. P. Parker, M.D., and others; October, 1894 (Dr. J. Pleasant Parker, Saint Louis, Missouri, U.S.A.).—Bulletin de l'Académie de Médecine; par J. Bergeron, Secrétaire Perpétuel; No. 47; Séance du 20 Novembre, 1894 (G. Masson, Paris).—Brain, Part 68; Winter, 1894 (Macmillan and Co., London); price 3s. 6d.—Separat-Abdruck aus den Klinischen und Anatomischen Beiträgen zur Pathologie des Gehirns; von Dr. S. E. Henschen; Teil 3; S. 100-115 (Almqvist und Wiksells, Upsala, 1894).—A Case of Chronic Peritonitis, with Intestinal and Abdominal Fistulæ; Enterorrhaphy; Recovery; by F. H. Wiggin, M.D.; reprint (Trow Directory Printing Company, New York, 1894).—The Journal of the College of Science, Imperial University, Japan; vol. viii., Part 1 (by the University, Tokyo, Japan, 1894).—The Medico-Legal Journal; New York, June, 1894 (C. Bell, Esq., Broadway, New York).—Transactions of the Association of American Physicians; ninth session, 1894; vol. ix. (printed for the Association, Philadelphia).—Merrie England; by R. Blatchford (The Clarion Newspaper Company, London, 1894); price 1d.—Proceedings of the Philosophical Society of Glasgow, 1893-94, vol. xxv. (S. Smith and Son, Glasgow, 1894); price 10s. 6d.—From Messrs. C. W. Faulkner and Co., Jewin-street, London, Calendars for 1895 and Christmas Cards, &c.—Entstehung und Vererbung individueller Eigenschaften und Krankheiten; von Dr. F. Rohde (G. Fischer, Jena, 1895).—Die Behandlung der Krankheiten der Eustachischen Röhre; von Professor Dr. K. Bürkner (G. Fischer, Jena, 1894).—Die Hadernkrankheit, eine typische Inhalations-Milzbrandinfection beim Menschen; von Dr. Hans Eppinger (G. Fischer, Jena, 1894).—Beiträge zur feineren Anatomie der Medulla Oblongata und der Brücke; von Dr. A. Cramer (G. Fischer, Jena, 1894).—Die Lehren von den Funktionen der einzelnen Theile des Ohrlabyrinths; von Dr. Stanislaus von Stein; übersetzt u. bearbeitet von Dr. C. von Krzywicki (G. Fischer, Jena, 1894).—The Thumb Ready Reckoner (Henry Frowde, Amen-corner, London, E.C.).—Die Thierischen Parasiten des Menschen; von Dr Max Braun (Adalbert Stuber, Würzburg), 1895.—Mechanotherapie: ein Handbuch der Orthopaedie, Gymnastik, und Massage, in Verbindung mit Fachmännern, von Prof. Dr. A. Landerer (F. C. W. Vogel, Leipzig, 1894).—Transactions of the American Ophthalmological Society; thirtieth annual meeting, Washington, D.C., 1894 (published by the Society, Hartford).—Die Behandlung der Diphtherie mit Behring's Heilserum; von Dr. H. Kassel (Williams and Norgate, London), 1895.—Die Syphilis der Nase und des Halses; von Dr. P. H. Gerber (Williams and Norgate, London, 1895).—Massagebehandlung bei Frauenleiden; von Dr. R. Ziegenspeck (Williams and Norgate, London, 1895).—Anleitung zur Aseptischen Geburtshülfe; von Dr. P. Strassmann (Williams and Norgate, London, 1895).—The Westminster Review, November, 1894: Pyjama Purists; by Chas. F. Rideal. Virtue made Easy: being an Apology for the Majority of the London County Council; by H. C. B. (The Roxburghe Press, Westminster, 1894); price 2d.—The following Diaries, &c., for 1895 from Messrs. Chas. Letts & Co., Royal Exchange, London:—Improved Office and Pocket Diaries and Note Books, A B C Medical Diary and Visiting List, Thumb Diary, Writing Table Remembrancer, Universal Shilling Blotting Pad Diary, Folio Blotting Pad Diary, Calendars, and Patent Date Indicator.—Magazines for December: Cassell's Family Magazine, The Humanitarian, Illustrated Modern Art and Literature (Christmas Number), Boy's Own Paper, Girl's Own Paper, Leisure Hour, Sunday at Home, Friendly Greetings.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, for publication in the next number.*

ANDERSON, R. H., M.B. Melb., has been appointed Health Officer for the Mirboo Shire, Victoria, Australia.

ARNOLD, E. G. E., L.R.C.P., M.R.C.S., has been appointed Senior Obstetric House Physician to St. Thomas's Hospital.

BLACKER, A. BARRY, M.D., B.S. Durh., L.R.C.P., M.R.C.S., has been appointed Clinical Assistant in the Electrical Department, St. Thomas's Hospital.

CUFF, A. W., B.A., M.B., B.C. Cantab., L.R.C.P., M.R.C.S., has been reappointed House Surgeon to St. Thomas's Hospital.

DICKSON, H. A., L.R.C.P., M.R.C.S., has been reappointed House Surgeon to St. Thomas's Hospital.

FISHER, J. H., M.B. Lond., F.R.C.S., L.R.C.P., has been appointed Senior Ophthalmic House Surgeon to St. Thomas's Hospital.

FITZGERALD, C. G., L.K.Q.C.P. Irel., L.R.C.S., L.M., has been appointed Health Officer for the Seymour Shire, Seymour and Tallarook Ridings, Victoria, Australia, vice Ray, resigned.

FORRESTER, R. A. P., M.B., Ch.M. Edin., has been appointed Health Officer for the Wycheproof Shire, Victoria, Australia.

GENGE, G. G., L.R.C.P., M.R.C.S., has been appointed Resident House Physician to St. Thomas's Hospital.

GRIFFITHS, J., M.D., M.S. Edin., D.P.H. Camb., has been appointed Assistant Surgeon to Addenbrooke's Hospital, Cambridge.

GRÜNBAUM, A. S. F., M.A., M.B., B.C. Cantab., L.R.C.P., M.R.C.S., has been reappointed Non-resident House Physician to St. Thomas's Hospital.

HALLIWELL, T. O., L.R.C.P., M.R.C.S., has been appointed Clinical Assistant in the Department for Diseases of the Throat, St. Thomas's Hospital.

HARDING, H. W., L.R.C.P., M.R.C.S., has been appointed Assistant House Surgeon to St. Thomas's Hospital.

HAWARD, H. H., L.R.C.P., M.R.C.S., has been appointed Clinical Assistant in the Department for Diseases of the Skin, St. Thomas's Hospital.

HAWKES, J. A., M.B. Melb., has been appointed, pro tem., a Public Vaccinator for St. Arnaud, Victoria, Australia.

HINTON, H. T., M.B., C.M. Aberd., has been appointed Certifying Factory Surgeon for the Heytesbury District.

JOYCE, J. H., B.A., M.B., B.C., has been appointed House Surgeon to the Kent and Canterbury Hospital, vice A. C. Elliman, resigned.

KING, A. F. W., L.R.C.P., M.R.C.S., has been reappointed Clinical Assistant in the Department for Diseases of the Throat, St. Thomas's Hospital.

LAVER, J. W., L.R.C.P., M.R.C.S., has been reappointed Clinical Assistant in the Department for Diseases of the Skin, St. Thomas's Hospital.

LAYTON, T. G., L.R.C.P., M.R.C.S., has been appointed Clinical Assistant in the Department for Diseases of the Ear, St. Thomas's Hospital.

LESLIE, R. MURRAY, M.B. Edin., M.R.C.P. Lond., has been appointed Assistant Physician to the Royal Hospital for Diseases of the Chest, London.

LLOYD, F., M.D. Syd., L.R.C.S. Irel., has been appointed, pro tem., a Public Vaccinator Casterton, Victoria, Australia.

LOGAN, RODERIC, M.R.C.S. Eng., L.S.A. Lond., has been appointed Medical Officer of Health to the Ashby-de-la-Zouch Rural Sanitary Authority and to the Ashby Woulds Urban Sanitary Authority.

MERRY, W. J. C., M.B., B.Ch. Oxon., has been reappointed House Surgeon to St. Thomas's Hospital.

MISKIN, L. J., L.R.C.P., M.R.C.S., has been reappointed House Surgeon to St. Thomas's Hospital.

MURPHY, W. P., M.B., Ch.B. Melb., has been appointed Health Officer for the Howgaa Shire, Victoria, Australia.

NICHOLSON, T. G., B.Sc. Lond., L.R.C.P., M.R.C.S., has been reappointed Non-resident House Physician to St. Thomas's Hospital.

PIRIE, J., M.A. Aberd., M.B., C.M., has been appointed Medical Officer for the Harbury District of Southam Union.

RUSSELL, A. E., M.B. Lond., L.R.C.P., M.R.C.S., has been appointed Assistant House Surgeon to St. Thomas's Hospital.

SAUNDERS, E. A., M.A., M.B., B.Ch. Oxon., L.R.C.P., M.R.C.S., has been appointed Resident House Physician to St. Thomas's Hospital.

TINLEY, W. E. F., M.B., B.S. Durh., has been appointed Junior Obstetric House Physician to St. Thomas's Hospital.

TOOMBS, H. G., L.R.C.P., M.R.C.S., has been appointed Junior Ophthalmic House Surgeon to St. Thomas's Hospital.

VINCENT, H. B., M.R.C.S., has been appointed Medical Officer of Health for the Rural Sanitary District of the Erpingham Union, vice Taylor.

WALLACE, L. A. R., B.A., M.B. Oxon., L.R.C.P., M.R.C.S., has been appointed Clinical Assistant in the Department for Diseases of the Ear, St. Thomas's Hospital.

WEST, SAMUEL, M.D. Oxon., F.R.C.P. Lond., has been appointed an Examiner in Medicine at the University of Oxford.

WILSON, J. T., M.B., C.M., D.P.H. Aberd., has been appointed Medical Officer for the County of Lanarkshire.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

BOOTLE BOROUGH HOSPITAL.—Assistant House Surgeon and Dispenser. Salary £50 per annum, with board, washing, lodging, &c.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—House Physician for six months. Board and residence and allowance for washing provided. Applications to the Secretary at the office, 24, Finsbury-circus, E.C.

GLAMORGANSHIRE AND MONMOUTHSHIRE INFIRMARY, Cardiff.—Assistant Resident Medical Officer for six months. Board, lodging, and washing provided.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, Bloomsbury, W.C.—House Surgeon to Out-patients' Department for six months. Salary 25 guineas.

KENT AND CANTERBURY HOSPITAL, CANTERBURY.—Assistant House Surgeon, unmarried. Salary £50 a year, with board and lodging.

LEWES DISPENSARY AND INFIRMARY AND VICTORIA HOSPITAL.—Resident Medical Officer. Salary £110 per annum, with furnished apartments, coals, gas, and attendance.

MANCHESTER ROYAL INFIRMARY.—Resident Medical Officer for the Fever Hospital at Monsall for at least twelve months. Salary £250 per annum, with board and residence.

MANCHESTER HOSPITAL FOR CONSUMPTION AND DISEASES OF THE THROAT AND CHEST.—Assistant Medical Officer. Honorarium £25 per annum.

NORFOLK AND NORWICH HOSPITAL.—Assistant to House Surgeon for six months. Board, lodging, and washing provided. Applications to the House Surgeon.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney-road, Shoreditch, N.E.—House Physician for six months. At the expiration of this term the house physician will be required, if eligible, to serve as House Surgeon for a further period of six months. Salary as House Physician at the rate of £60 per annum, and as House Surgeon (the senior post) at the rate of £80 per annum. Applications to the Secretary, City Office, 27, Clements-lane, Lombard-street, E.C.

OWENS COLLEGE, Manchester.—Junior Demonstratorship in Anatomy. Annual stipend £100.

PADDINGTON GREEN CHILDREN'S HOSPITAL, London, W.—Honorary Physician to Out-patients.

QUEEN'S COLLEGES, Ireland.—Professorship of Natural Philosophy in the Queen's College, Cork. Applications to the Under Secretary, Dublin Castle.

SCARBOROUGH HOSPITAL AND DISPENSARY.—Assistant House Surgeon, for six months. Salary £50 per annum, with board and lodging. Stimulants and washing not provided.

SHEFFIELD UNION.—Junior Resident Assistant Medical Officer (single or widower) at the Workhouse Infirmary, Fir Vale, Sheffield, for six months. Nominal salary at the rate of £25 per annum, with board, lodging, and washing. Applications to the Clerk to the Guardians, Union Offices, Sheffield.

WESTMINSTER HOSPITAL, Broad Sanctuary, S.W.—Fourth Assistant Surgeon. Also Assistant Surgeon.

WESTMINSTER GENERAL DISPENSARY, 9, Gerrard-street, Soho, W.—Resident Medical Officer for one year. Also Honorary Surgeon.

WOLVERHAMPTON EYE INFIRMARY.—House Surgeon. Terms £60 per annum, with rooms, board, and washing.

Births, Marriages, and Deaths.

BIRTHS.

ABBOTT.—On Dec. 1st, at Syston House, Boscombe, Bournemouth, the wife of W. F. Abbott, L.R.C.S. E., L.A.H., &c., of a son.

ALEXANDER.—On Dec. 1st, at Trinity-square, S.E., the wife of John Alexander, M.R.C.S. Eng., of a daughter.

ECCLES.—On Dec. 3rd, at Brighton, the wife of G. Solcher Eccles, M.A., M.B. Cantab., of a son.

HOOLEY.—On Dec. 2nd, at Broxmore, Cobham, Surrey, the wife of Arthur Hooley, M.R.C.S., L.R.C.P.E., of a son.

MARRIAGES.

MARSHALL—MACKIE.—On Nov. 27th, at Hyndland Church, Kelvinside, Glasow, by the Rev. Henry Gray Graham, Surgeon-Captain D. G. Marshall, 17th Bengal Cavalry, to Elizabeth, only daughter of the late N. M. Mackie, of Edinburgh.

REVELL—BURTON.—On Dec. 1st, at St. Paul's, Brighton, by the Rev. Edward Courteney, Hugh Stanley Revell, M.R.C.S., L.R.C.P., eldest son of William Frederick Revell, 58, Oxford-gardens, to Alice, second daughter of the late William Burton, Esq., Ceylon Civil Service. No cards. Ceylon papers please copy.

ROGERS-TILLSTONE—MCCALL.—On Nov. 30th, at Kelvinside, by the Rev. J. Frazer Graham, John M. Rogers-Tillstone, M.R.C.S., L.R.C.P. Lond., of Ditton, near Maidstone, to Rosie, youngest daughter of the late Captain Alex. McCall, Chief Constable of Glasgow.

DEATHS.

HUNTER.—On Dec. 2nd, at Matlock, William Bell Hunter, M.D.

RIORDAN.—On Dec. 3rd, at Newcastle-on-Tyne, R. de Burgh Riordan, Surgeon-Major, A.M.S. (retired), aged 58.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY.—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (1 P.M.), St. Mark's (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynecological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.).

TUESDAY.—London (2 P.M.), St. Bartholomew's (1.30 P.M.), Guy's (1.30 P.M.), St. Thomas's (3.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1.30 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.).

WEDNESDAY.—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), Gt. Northern Central (2.30 P.M.), King's College (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (2.30 P.M.), Gt. Ormond-street (9.30 A.M.).

THURSDAY.—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (2 P.M.), Soho-square (2 P.M.), North West London (2 P.M.).

FRIDAY.—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), Cancer (2 P.M.), Chelsea (2 P.M.).

SATURDAY.—Royal Free (9 A.M. and 2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), University College (9.15 A.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), Cancer (2 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

MONDAY.—MEDICAL SOCIETY OF LONDON.—8.30 P.M. Mr. Hurry Fenwick: On the Value of Exciting Cellulitis in certain Urinary Diseases.—Mr. Spencer Watson: A case of Cystic Polypi of the Nose (with Specimens and Drawings).

SOCIETY OF ARTS.—8 P.M. Prof. Vivian B. Lewes: Modern Developments in Explosives. (Cantor Lecture.)

TUESDAY.—ROYAL MEDICAL AND CHIRURGICAL SOCIETY (20, Hanover-sq.).—Dr. J. Edward Squire: The Influence of Heredity in Phthisis.

WEDNESDAY.—LARYNGOLOGICAL SOCIETY OF LONDON (20, Hanover-square, W.).—5 P.M. Cases, Specimens, &c., by Mr. A. A. Bowlby, Mr. H. T. Butlin, Mr. A. E. Durham, Mr. R. Lake, Dr. Felix Semon, Mr. Walter G. Spencer, Dr Scanes Spicer, Mr. Charters J. Symonds, and Dr. W. McNeill Whistler.

SOCIETY OF ARTS.—8 P.M. Mr. Thomas Ward: Manufacture of Salt.

HUNTERIAN SOCIETY.—8.30 P.M. Pathological Evening. Dr. Arnold Chaplin: Thoracic Aneurysm.—Mr. J. H. Targett: Primary Cancer of the Bladder.—Mr. Tubby: Acute Arthritis in an Infant.—Dr. Glover Lyon: Complete Fibrosis of Lung, with extensive Fibroses in other Organs.—Dr. Hingston Fox: Cerebral Abscess.—Dr. Fred. J. Smith: Notes of a case of Typhoid Fever treated by the Continuous Bath.

THURSDAY.—BRITISH GYNÆCOLOGICAL SOCIETY.—Specimens will be shown. Dr. Bantock: Hæmato-salpinx and Tubal Gestation contrasted.

MEDICO-PSYCHOLOGICAL ASSOCIATION, SOUTH-WESTERN DIVISION (Bailbrook House, Bath).—3 P.M. Dr. Goodall: Certain Questions bearing upon the Problems of Heredity and Alcoholism in connexion with Insanity.—Dr. Bristowe: The Relationship between General Paralysis and Chronic Renal Disease. Dr. Maury Deas will open a Discussion on "The Uses and Limitation of Mechanical Restraint as a Means of Treatment."

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.—8 P.M. Card Specimens by Messrs. Lang, Work Dodd, Bronner, Johnson, &c. 8.30 P.M. Papers:—Mr. George Lawson: Plastic Cellulitis of the Orbit.—Mr. J. B. Lawford: A case of Hydatid Cyst of the Orbit; Removal.—Mr. G. Hartridge: Osteoma of the Conjunctiva.—Mr. C. D. Marshall: Notes on Hardening of Eyes in Formal (with Specimens and Microscopical Sections).—Mr. A. Bronner: Notes of a case of Papillary Conjunctivitis due to Prolonged Internal Use of Arsenic.

SOUTH WEST LONDON MEDICAL SOCIETY (Bolingbroke House, Wandsworth).—8.30 P.M. The Discussion on Mr. Dickinson's paper on "Professional Remuneration" will be reopened by Mr. T. A. I. Howell.

HARVEIAN SOCIETY.—8.30 P.M. Second Harveian Lecture by Mr. Herbert W. Page.

NORTH LONDON MEDICAL AND CHIRURGICAL SOCIETY (Gt. Northern Central Hospital, Holloway-road, N.).—9 P.M. Dr. James Galloway: Bacteriological Diagnosis of Diphtheria.

FRIDAY.—CLINICAL SOCIETY OF LONDON.—8.30 P.M. Dr. Washbourn, Dr. E. W. Goodall and Mr. Card: A Series of Eighty Cases treated with Diphtheria Antitoxin.—Dr. Kesteven: Some cases of Rapid Cure of Diphtheria by means of Antitoxin.—Dr. E. W. Goodall: An Unusual Case of Tracheal Diphtheria.

EPIDEMIOLOGICAL SOCIETY OF LONDON (11, Chandos-st., Cavendish-sq.), 8 P.M. Dr. Klein: The Relation of Bacteria to their Toxines.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

WEDNESDAY.—ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN (Leicester-sq., W.C.).—1 to 5 P.M. Dr. Morgan Dockrell: Urticaria.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Bloomsbury).—3 P.M. Lecture by Dr. Beevor.

WEST LONDON HOSPITAL (Hammersmith-rd., W.).—5 P.M. Dr. Garrod: Chorea. (Post-graduate Course.)

KING'S COLLEGE.—7 P.M. Prof. W. D. Halliburton: The Process of Digestion of Food in Animals and Plants. (Free Lecture, with Lantern Illustrations and Experiments.)

THE SANITARY INSTITUTE (Parkes Museum, Margaret-street, W.).—8 P.M. A Discussion will be opened by Dr. George Blundell Longstaff on "The Sanitary Aspects of the London Building Act, 1894." Messrs. T. W. Blashill, H. Percy Boulnois, W. Wallace Bruce, W. Goldstraw, and Dr. Louis Parkes will take part.

SATURDAY.—ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN (Leicester-square, W.C.).—2 to 6 P.M. Dr. Morgan Dockrell: Diseases of Sweat Glands.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Dec. 6th, 1894.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb	Solar Radia in Vacuo	Maximum Temp Shade	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Nov. 30	30·46	N.E.	40	38	61	48	40	...	Hazy
Dec. 1	30·51	N.E.	40	39	45	43	39	...	Foggy
" 2	30·47	N.E.	38	36	46	45	35	...	Foggy
" 3	30·09	N.E.	44	42	62	48	37	...	Hazy
" 4	29·73	N.E.	36	36	44	42	36	...	Foggy
" 5	29·84	E.	41	40	47	45	36	...	Foggy
" 6	30·03	W.	34	34	42	40	34	...	Foggy

Notes, Short Comments & Answers to Correspondents.

EDITORIAL NOTICE.

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used.

MANAGER'S NOTICE.

UNDER no circumstances do the Proprietors authorise the insertion of loose advertisement circulars and handbills in THE LANCET. Any such announcements are inserted by the newsagents, whom the Proprietors cannot control. At the same time, the Manager will be glad if readers will send him copies of any circulars, with the name and address of the agent through whom they obtain THE LANCET, and the Manager will then endeavour to mitigate the nuisance.

"CONSULTANTS AND GENERAL PRACTITIONERS."

A Perfidious Patient thinks that the rights of patients are overlooked in these discussions, and vindicates them in a bold fashion. She says patients are not so free to change their advisers in the country as in London, and find it convenient to pay a fee to a consultant instead of incurring the more uncontrollable cost of attendance at home. We do not agree that medical practitioners make visits when there is no need for their services. No one disputes the right of patients to change their medical adviser.

Mr. F. Hone Moore.—We cannot possibly publish the letters, and, however unsatisfactory the issue of the matter may appear, we cannot see that any practical good will be obtained by attempting to rejudge it.

M.A., L.R.C.S., L.R.C.P.—McVail, "Vaccination Vindicated"; Edwardes, "Small Pox and Vaccination"; and the volumes of Reports of Evidence taken before the Royal Commission now sitting.

Mr. Chas. Crossley.—We do not know of any book dealing with the subject, and think it unlikely that any such book could be reliable.

THE TREATMENT OF DIPHTHERIA.

To the Editors of THE LANCET.

SIRS,—Dr. MacGregor's antitoxin treatment of his case of diphtheria and its happy eventuation (THE LANCET, Nov. 24th, p. 1215) are interesting; but have we not all had equally happy results from quite different modes of treatment? *Quot homines, tot sententiæ.* About thirty years ago I wrote an account in THE LANCET of some sixteen cases—their treatment and the results. During the past fortnight I have had nine cases, all at present in a fair way of recovery, treated with sulphur and my old favourite gargle (for those who can use it) of hydrochloric acid, tinct ferri sesquichlor., and quinine. In the case of those who cannot use the gargle I dip a sponge in it—a very small piece of velvet sponge tied securely to a piece of whalebone,—and swab the diphtheritic membrane off tonsil or adjacent mucous surfaces two or three times, giving sulphur lozenges—very palatable (I enclose a specimen for your inspection)—to be slowly sucked every two or three hours; the usual hygienic treatment; plenty of beef-tea and jellies; milk and soda water or claret and water to drink. I always insist upon free ventilation of the sick-room—the windows opened widely when the weather is favourable, and slightly when not so propitious. I do not wish to claim any unique success for my treatment; for I firmly believe that some cases are not, and never will be, amenable to treatment, while others are and will be so in different hands and under different treatment, and in these cases, like "Belinda's Betty," we shall be praised for labours not our own.

I am, Sirs, yours faithfully,

Cley, Norfolk, Dec. 3rd, 1894. W. SUMPTER, M.D.

A QUERY.

To the Editors of THE LANCET.

SIRS,—Seeing (THE LANCET, Nov. 17th, p. 1173) that the dose of antitoxin at the Hôpital des Enfants Malades, Paris, is 20 c.c. for children, while at Aberdeen (THE LANCET, Nov. 25th, p. 1215) the dose is 16 minims (= 1 c.c.) for an adult, I naturally ask myself where the error (if there should be one) creeps in to account for such an enormous difference in the dose. I can hardly imagine that the antitoxin at Aberdeen is twenty times more powerful than that at Paris. I have in my possession a little hypodermic syringe marked 10 c.c. which obviously should have been marked 10 c.m. Perhaps a similar error somewhere else may account for the striking discrepancy above noted.

I am, Sirs, yours obediently,

Pau, Nov. 30th, 1894. R. J. S.

*** The various serum preparations differ greatly in strength.—ED. L.

THE "DOMEN" VARICOSE CIRCLET.

THIS apparatus is described as an artificial vein valve. In appearance it resembles a garter, which is fitted with a curved steel watch-spring and contains a pad filled with glycerine. The circlet is to be worn so that the pad rests on the vein above the distended portion. It is compared by the manufacturers to the valve of a vein in its mode of action, but it will be seen at once that this apparatus is necessarily very different in its action from that of a vein valve. The latter permits a current of blood of varying size and strength to constantly pass upwards, but the blood does not repass the valve, therefore the vein below is unloaded; the former must prevent all passage of blood through the part of vein to which it is applied. The vein below is therefore kept over-distended, especially on exertion of the limb, and the blood has to find its way towards the heart by other channels. It acts in the same way as the ordinary spring truss. Some pain, caused by the weight of a long unsupported column of blood, on the lower part of the vein may be lessened; but we think the wearing of such an apparatus would lead to gradual increase in the extent of vein disease below the point to which it is applied.

F. H. is thanked for his communication. Athough questions of medical treatment are obviously out of place in a semi-scientific society we do not think anything is to be gained by closing the door to popular expositions of ascertained facts in etiology and prevention. Indeed, such form part of the public health, and the better the people are instructed the greater the gain. The subject dealt with has been often lectured on in popular health lectures in other and larger towns—e.g., Manchester. The danger is that exaggerated notions may be formed or that statements may be made which are unsupported by facts. Therefore we think the paper referred to came quite within the scope of the society, but the personal references made from the chair were certainly not in good taste or quite fair to the lecturer himself.

Dr. J. Adams.—The proceeding is legal if the quotation is accurate and fairly applied. To bring it strictly within this category the use of different sized type should, we think, have not been made.

Mr. A. McNaughton.—We do not recommend individual practitioners, and have no personal experience of the efficacy of the treatment mentioned.

Mr. John Marshall.—Our correspondent is not sufficiently explicit.

SEA-SICKNESS.

To the Editors of THE LANCET.

SIRS,—Will any of your readers who have had practical experience in the treatment of sea-sickness kindly inform me which drug they have found most efficacious in its prevention, or in its treatment when once the sickness has set in? I am, Sirs, yours faithfully,

Dec. 3rd, 1894. D. F. W.

*** The latest remedy, perhaps, for this malady is chlorobrom, to which attention was called by Dr. Charteris in our columns (THE LANCET, April 21st, 1894, p. 1001).—ED. L.

THE INTERFERENCE OF SANITARY INSPECTORS IN NOTIFICATION CASES.

A CORRESPONDENT is naturally aggrieved at the interference of a sanitary inspector in a case of doubtful diagnosis in which he was properly careful not to notify till he could make sure of the disease. The case turned out to be one of scarlet fever. He looked carefully and repeatedly for the rash and did not find it. As soon as peeling appeared he notified. He was entirely right in his action. But he does not seem to have been quick enough for the sanitary inspector who, our correspondent informs us, called one day, went into the patient's (a young girl of seventeen) room, examined her chest and arms, and pronounced the case scarlet fever. If this account be exact the proceeding was most reprehensible. Yet the chairman and clerk of the County Council have completely exonerated the inspector. Not only so, they are reported to have said that the doctor "made a mistake about the case and painted the throat with some sort of stuff" (there was some greyish membranous patch on the tonsils). To the questions we are asked we make the following reply: 1. An inspector has no duty to enter sick rooms and examine cases. 2. The facts of the case should be carefully restated to the Sanitary Committee. 3. The third question is rather legal than medical.

Mr. W. H. Kesteven.—We agree with our correspondent that the choice of name is unfortunate.

Mr. William Higgin.—We have already published articles on the subject.

Dr. Leonard Kidd's communication will receive attention.

HOW A PRESBYOPE CAN READ WITHOUT THE AID OF GLASSES; AND AN EXCELLENT SUBSTITUTE FOR AN EAR TRUMPET.

To the Editors of THE LANCET.

SIRS,—Perhaps the two suggestions embodied in the following suppositious incidents in the life of a busy general practitioner may interest and instruct some of your readers.

Let us suppose, then, that one of us has had a long round, and is seeing as his last patient a lady very deaf and suffering from rheumatic fever. He proceeds to take her temperature. The patient likes a little chat with the doctor, who has a headache and finds shouting fatiguing; so he takes his binaural stethoscope, puts the ear-pieces into his patient's ears, and finds that when he speaks into the chest-piece he is in possession of a wonderfully efficient ear trumpet. When he comes to remove the thermometer he discovers that he has left his glasses (our doctor is fifty-five and very presbyopic) at his last patient's house. Never mind. He takes one of his visiting cards from the pocket in his list, makes a hole about three lines from the corner with a small pin, and reads his thermometer with the greatest ease—in fact, he could read half-minion with but little difficulty, either in ordinary daylight or with the aid of a fairly good lamp.

I am, Sirs, faithfully yours,

Dinas-Mawddwy, Nov. 26th, 1894. T. A. J. COCKSEDGE.

IS RED HAIR DISAPPEARING?

To the Editors of THE LANCET.

SIRS,—During several years' experience in Civil Service examinations I have noticed the very small proportion of the candidates who have red or reddish hair. In my school-days about one boy in ten had either red hair, or auburn, as his friends would call it; whereas now the proportion among candidates at the examinations in which I have been engaged is only about 1 per cent. Various circumstances seem to confirm the above statements and to indicate the gradual disappearance of red hair. Some of your readers may afford interesting information on the question. I am, Sirs, yours truly,

Dec. 5th, 1894. INDEX.

THE EFFECT OF THE CONTAGIOUS DISEASES ACTS.

To the Editors of THE LANCET.

SIRS,—I should be very much obliged to you or any of your readers who could tell me where I can find statistics of the effect of the Contagious Diseases Act when in force upon the numbers of soldiers and sailors sick from venereal disease.—I am, Sirs, yours obediently,

Cannes, France, Nov. 25th, 1894. VIATOR.

*** Our correspondent will find the information that he requires in the Report of the Select Committee of the House of Commons on the Contagious Diseases Acts, 1879 to 1882, a copy of which can be procured for a very moderate charge from Messrs. Eyre and Spottiswoode, East Harding-street, Fetter-lane, E.C.—ED. L.

WANTED, AN ARTIFICIAL NOSE.

To the Editors of THE LANCET.

SIRS,—I have a patient whose nose is disfigured by the lower portion of the right nostril having been eaten away. I should feel very much obliged if you could inform me if there is anyone whose business it is to supply such defects artificially?—I am, Sirs, yours faithfullly,

Nov. 30th, 1894. A. J. T.

TESTIMONIALS OF BRITISH PRACTITIONERS TO ADVERTISED REMEDIES.

An Exile and Subscriber, dating from New York, sends us a pamphlet on Pre-Senility, which consists of testimonials, most in a highly laudatory strain and having the signature of practitioners, many of them bearing English, Scottish, and Irish diplomas. We appeal to the profession to abstain from obliging vendors of drugs which are vaunted as possessing all sorts of unreasonable virtues with laudatory testimonials.

M.B., C.M.—The answer to our correspondent's letter is not difficult. He could not honourably or with satisfaction to himself take a practice that has been lately bought by another gentleman without coming to terms with him. The unqualified assistant is the awkward element in the case, and has possibly something to do with the unsuccess of the new principal. Clearly our correspondent could not recognise the unqualified assistant's right to determine the succession of the practice. This gentleman may have moral claims on the practice after a long service of seventeen years; but, even so, he should be eliminated from the case or he may bring his employers into trouble in more ways than one. It does not answer for a registered medical man to be dependent on an unqualified assistant.

Mr. Alfred Carr.—The two diseases are not comparable. The antitoxin of diphtheria has been arrived at through bacteriological investigation, which is still lacking in small-pox.

M.D. Cantab.—We have reason to believe that openings in New Zealand are neither numerous nor promising.

THE USE OF MENTHOL IN TUBERCULOSIS.

To the Editors of THE LANCET.

SIRS,—I should esteem it a favour if you would give me information on the following point: With the ordinary bacteriological culture methods and the use of menthol I find it possible to inhibit (and in some cases destroy) the growth of several pathogenic bacteria; the vapour of menthol is in some instances sufficient to prevent the growth of bacteria. Before proceeding further with my experiments I am anxious to find out if menthol has been used in tuberculosis? Any information on this point I shall value.

I am, Sirs, yours faithfully,

Nov. 5th, 1894. F. I. R.

Mr. D. Ferguson.—Our correspondent's communication will receive attention. The delay is quite unavoidable. The paper is marked for insertion.

L. E. S.—The suggestion is a good one. Unfortunately the information our correspondent seeks from us is not always ours to give.

Sergeant.—We do not recommend individual practitioners.

PROFESSIONAL TITLES.

To the Editors of THE LANCET.

SIRS,—I shall be obliged if you will inform me what is the correct designation and style for visiting cards and doorplate to be used by a medical practitioner who is a F.R.C.P. and a M.R.C.S.

I am, Sirs, yours truly,

Dec. 4th, 1894. MEDICUS.

*** Strictly speaking, the title "Dr." can only be used by a graduate in medicine of one of the universities. Our correspondent's proper title is "Mr."—ED. L.

CHRONIC PROSTATITIS.

To the Editors of THE LANCET.

SIRS,—Will any of your readers kindly oblige by suggesting an efficient antiseptic and astringent ointment for painless local application in cases of subacute and chronic prostatitis, in which the patient objects to the use of caustics? Also the best form of instrument with which to apply the ointment? I am, Sirs, yours faithfully,

Dec. 3rd, 1894. JUNIOR.

During the week marked copies of the following newspapers have been received:—*Waterford Chronicle, North Middlesex Chronicle, Leicester Post, Newcastle Chronicle, Glasgow Herald, Manchester Guardian, Sussex Daily News, Scotsman, Western Morning News, Derbyshire Times, Devizes Advertiser, Birmingham Gazette, Dundee Advertiser, Darwen Post, Liverpool Mercury, Cork Daily Herald, Glamorgan Free Press, Burnley Express, Essex County Chronicle, Redditch Indicator, Dublin Ferago, Times of India, Builder, City Press, Reading Mercury, Sanitary Record, Citizen, Architect, Pioneer Mail, Hertfordshire Mercury, Local Government Chronicle, Educational Times, Leeds Hospital Magazine, Weekly Free Press and Aberdeen Herald, Leeds Mercury, West Middlesex Advertiser, Guy's Hospital Gazette, Surrey Advertiser, Bristol Mercury, Livepool Daily Post, Local Government Journal, Yorkshire Post, West Middlesex Standard, Le Temps (Paris), Melton Mowbray Weekly News, Falkirk Herald, Flint County Herald, Melbourne Leader, Cornish Telegraph, Meat and Trades Journal, Cape Times, Keble's Margate and Ramsgate Gazette, Reading Observer, Kendal Mercury, Morning Advertiser, Scuate, Westmorland Gazette, Staffordshire Advertiser, Courrier de la Presse, &c. &c.*

Communications, Letters &c. have been received from—

A.—Dr. Atcheson, Lond.; Dr. J. Abbott, Baillieston, N.B.; Mons. F. Alcan, Paris; Messrs. Atkinson & Phillipson, Newcastle-on-Tyne; Apollinaris Co., Lond., Manager of; An Assistant, Lond.; A Pertinacious Patient; Amicus, Lond.; A. J. T., Lond.

B.—Dr. P. H. Boyden, Pembroke Dock; Dr. J. L. Burnham, Manchester, N.H., U.S.A.; Dr. J. H. R. Bond, Chicago; Dr. R. Barnes, Liss; Mr. J. L. Bragg, Lond.; Mr. D. Biddle, Kingston-on-Thames; Mr. C. A. Ballance, Lond.; Mr. T. Barrett, Lond.; Mr. W. H. Brown, Leeds; Messrs. Bayliss, Jones, & Bayliss, Wolverhampton; Messrs. Bryce & Rumpff, Lond.; Messrs. J. Beal & Son, Brighton; Messrs. Blondeau et Cie., Lond.; British Institute of Public Health, Lond., Sec. of; Belfast Ropework Co., Manager of; Bootle Borough Hosp., Clerk of.

C.—Dr. J. Cagney, Lond.; Prof. W. H. Corfield, Lond.; Dr. Cox, Bodalla, N.S.W.; Mr. T. Cooke, Lond.; Mr. A. Carr, Cannes; Mr. A. J. H. Crespi, Wimborne; Mr. R. B. Chapman, Lond.; Messrs. Cassell & Co., Lond.; Cardiff Infirmary, Sec. of; Coombs' Eureka Aerated Bread Co., Nottingham; Cicero, Lond.; Climate, Lond.

D.—Mr. Alban Doran, Lond.; Mr. J. L. Dodge, Birmingham; Messrs. W. Dawson & Sons, Lond.

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F.—Dr. T. R. Fraser, Edinburgh; Dr. C. Forbes, Lond.; Dr. A. H. Freire, Menston; Mr. M. H. Feeny, Ulverston; Mr. A. Fournet, Lond.; Mr. E. J. M. Flynn, Lond.; Mr. W. P. Flynn, Eastbourne; Messrs. Fletcher, Russell, & Co., Warrington; F.R.C.P.E., Lond.

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H.—Dr. G. Herschell, Lond.; Dr. F. Hawkins, Reading; Mr. J. Heywood, Manchester; Messrs. Hohoff & Co., Lond.; Messrs. Herring, Derwick, & Hardy, Lond.; Messrs. T. Hopkinson & Co., Nottingham; Messrs. Hertz & Collingwood, Lond.; H. C., Elstree.

J.—Sir George Johnson, Lond.

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M.—Dr. P. H. Mules, Bowdon; Dr. R. L. Moorhead, Ilkeston; Mr. V. Matthews, Lond.; Mr. A. B. MacDowall, Lond.; Mr. W. H. Macpherson, Tarporley; Mr. H. Maturin, Winchfield; Mr. R. Morison, Newcastle-on-Tyne; Messrs. McMurray, London; Medical Assoc. of India, Hon. Sec. of; Maltine Manufacturing Co., Lond.; *Medical Abstract*, New York, Publisher of.

N.—Dr. J. Niven, Manchester; Norfolk Hospital, Norwich, Sec. of; National Dental Hosp., Lond., Dean of.

O.—Dr. T. Oliver, Newcastle-on-Tyne; Mr. H. Oppenheimer, Lond.; Dr. G. Ogilvie, Lond.

P.—Sir G. H. Porter, Dublin; Dr. Payne, Lond.; Dr. E. W. Parke, Chesterfield; Dr. H. A. Perkins, Tunbridge Wells; Mr. C. B. Prall, Kurnal, India; Mr. J. A. Philip, Lond.; Mr. G. Pinder, Cambridge; Mr. J. R. Pleace, Lond.; Mr. W. H. Purkis, Lond.; Messrs. Potter & Sacker, Lond.; Pan; Purchaser, Lond.

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S.—Dr. J. F. Shoemaker, Philadelphia; Dr. F. Semon, Lond.; Dr. G. E. Shuttleworth, Richmond; Dr. S. H. Snell, Grays; Dr. W. H. Smith, Meriden; Mr. H. Sewill, Lond.; Mr. R. Stewart, Glasg.; Mr. H. D. Stephanian, Radosto, Turkey; Mr. L. E. Stevenson, Temple Sowerby; Mr. P. Siewers, Lond.; Messrs. F. Stearns & Co., Lond.; Messrs. Smith, Elder, and Co., Lond.; Messrs. W. H. Smith & Son, Manchester; Messrs. Stubbs, Lond.; Messrs. Street & Co., Lond.; Sunday Lecture Soc., Lond., Organising Sec. of; Soc. for the Suppression of the Opium Trade, Sec. of; Sanitary Institute, Lond., Sec. of; Surveyor of Taxes, Lond.; Superintendent, Southsea; Subscriber, Blackpool.

T.—Dr. W. N. Thursfield, Shrewsbury; Dr. H. Tibbits, Lond.; Mr. N. Tarachand, Notts; Mr. E. J. Thompson, Atherstone; Tasma, Lond.

V.—Mr. A. Vallance, Lond.

W.—Dr. J. West, Lond.; Dr. A. O. Ward, Tottenham; Dr. P. Wardle, Southport; Mr. D. F. Whiteley, Downton; Mr. H. Williams, Shrewsbury; Mr. F. Wilson, Lond.; Mr. R. Willoughby, Lond.; Wolverhampton Eye Infirmary, Sec. of; Wye.

Letters, each with enclosure, are also acknowledged from—

A.—Dr. R. H. Adam, Bolton; Mr. W. F. Abbott, Boscombe; A. E., Lond.; Alpha, Lond.

B.—Mr. S. H. Benson, Lond.; Mr. C. Birchall, Liverpool; Mr. S. Bennett, Lond.; Mr. R. W. Branthwaite, Rickmansworth; Bury Dispensary Hosp., Sec. of; B. M., Lond.; Bonus, Lond.

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W.—Dr. A. T. H. Waters, Liverpool; Dr. D. White, Bangor, Ireland; Dr. W. Wakefield, Leeds; Mr. W. Webb, Peterboro'; Mr. J. H. Wilkinson, Dudley; Mr. W. H. Williams, Brynsiencyn; Messrs. A. P. Watt & Son, Lond.

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ADVERTISING.

Books and Publications...	...	Seven Lines and under	£0	5 0
Official and General Announcements		Ditto	0	5 0
Trade and Miscellaneous Advertisements		Ditto	0	4 6
		Every additional Line	0	0 6
Front Page (Books only)	...	Five Lines and under	0	5 0
		Every additional Line	0	1 0
Quarter Page	...		1	10 0
Half a Page	...		2	15 0
An Entire Page	...		5	5 0

The Manager cannot hold himself responsible for the return of testimonials &c. sent to the office in reply to advertisements; copies only should be forwarded.

NOTICE.—Advertisers are requested to observe that it is contrary to the Postal Regulations to receive at Post Offices letters addressed to initials only.

An original and novel feature of "THE LANCET General Advertiser" is a special Index to Advertisements on pages 2 and 4, which not only affords a ready means of finding any notice, but is in itself an *additional* advertisement.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance.

Answers are now received at this Office, by special arrangement, to Advertisements appearing in THE LANCET.

Terms for Serial Insertions may be obtained of the Manager, to whom all letters relating to Advertisements or Subscriptions should be addressed.

THE LANCET can be obtained at all Messrs. W. H. Smith and Son's and other Railway Bookstalls throughout the United Kingdom. Advertisements are also received by them and all other Advertising Agents.

Agent for the Advertisement Department in France—J. ASTIER, 8, Rue Traversiere, Asnières, Paris.